"A study to assess the effectiveness of video assisted teaching program on knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve in AIIMS Bhopal"

Dissertation

Submitted to the Faculty of Nursing

ALL INDIA INSTITUTE OF MEDICAL SCIENCES, BHOPAL

In partial fulfilment of the requirement for the degree of

M.Sc. Nursing in Medical Surgical Nursing

(Cardiological/Cardiothoracic Vascular Nursing)

By

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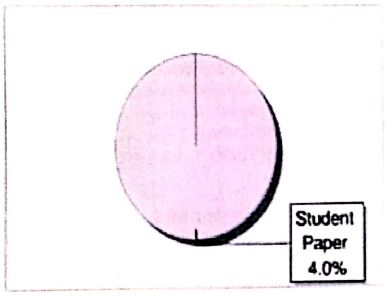

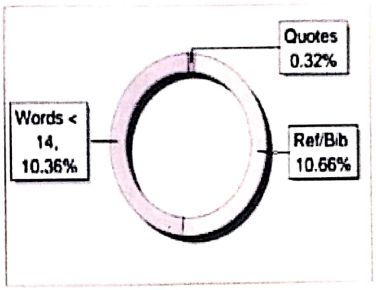

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AIIMS, Bhopal Institutional Human Ethics Committee- Student Research (IHEC-SR) in its 7th meeting held on 22nd February 2023 discussed your proposal titled **"A study to assess the effectiveness of video assisted teaching programme on knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve in AIIMS Bhopal"** and evaluated it for suitability for your dissertation as required for fulfilment of MSc (Nursing).

Following members attended the meeting:

1. Prof. D. K. Pal, Former HoD Community Medicine, GMC, Bhopal.....Chairperson
2. Prof. Rajnish Joshi, Professor of General Medicine, AIIMS, Bhopal.....Member
3. Prof. Amit Agrawal, Professor of Neurosurgery, AIIMS, Bhopal.....Member
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5. Dr. Girish Bhatt, Addl. Professor of Paediatrics, AIIMS, Bhopal.....Member
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7. Dr. Ankur Joshi, Assoc. Professor of CFM, AIIMS, Bhopal.....Member
8. Mr. Trivesh Goswami, Law Officer, AIIMS Bhopal,.....Member
9. Dr. Shashank Purwar, Professor of Microbiology, AIIMS, Bhopal.....Member Secretary

The decision of the committee is as follows:

The AIIMS, Bhopal IHEC-SR approves your research protocol. All research related activities must begin only after the date of this approval. The validity of this approval is till two years from the date of issuance. Please submit a closure report / renewal request before expiration of the validity for this approval.

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"A duty which becomes a desire will ultimately become a delight"

- George Gritter

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Aityhang Subba

Date:

Place:

ABSTRACT

Introduction

Heart valve replacement is a critical surgical intervention performed on individuals with diseased or damaged heart valves, aiming to restore normal blood flow through the heart. Patients with mechanical heart valves require lifelong anticoagulant therapy to prevent thromboembolic events. Adequate knowledge about anticoagulant drug therapy is crucial for their safety and optimal health outcomes.

Methodology

A randomized controlled trial was undertaken at AIIMS Bhopal, wherein 40 patients with mechanical heart valves were randomly assigned using a non-probability convenient sampling technique. They were equally and randomly divided into an experimental group and a control group with the assistance of a computer-generated randomization list. Sequentially Numbered Opaque Sealed Envelope (SNOSE) was utilized for allocation concealment. Participants in the experimental group (n=20) were exposed to video-assisted teaching designed to enhance their knowledge of anticoagulant drug therapy, while the control group (n=20) did not receive the video exposure. Data were collected through a self-structured knowledge questionnaire to assess participants' knowledge levels before and after the intervention. Statistical analysis was performed using SPSS version 20.

Result

Before the intervention, the majority of participants in the experimental group, consisting of 40 individuals, demonstrated Low (45.0%) and Very Low (55.0%) levels of knowledge regarding anticoagulant drug therapy for mechanical heart valves. Following the intervention, a significant improvement in knowledge scores was observed within the

experimental group (p-value=0.00), highlighting the efficacy of the intervention.The pretest mean knowledge score for the experimental group was 5.5 (SD=2.6), and this substantially increased to 14.9 (SD=2.06) in the post-test, indicating a considerable enhancement in knowledge levels. The study found no significant association between pretest scores and sociodemographic variables in both the experimental and control groups.

Discussion

The present study indicates that patients with mechanical heart valves possess inadequate knowledge of anticoagulant drug therapy, and a video intervention effectively improves their understanding. Similar findings from other studies emphasize the necessity of video-assisted teaching programs for mechanical valve patients.

Conclusion

The present study demonstrates that a video-assisted teaching program is an effective method to enhance knowledge regarding anticoagulant drug therapy in mechanical heart valve patients.

Keywords: Heart valve replacement, Anticoagulant therapy, Mechanical heart valves Knowledge,Video-intervention.

TABLE OF CONTENTS

S. NO.	CONTENT	PAGE NO.
1.	**CHAPTER I INTRODUCTION**	1
	Background of the study	1
	Need for the study	5
	Research problem statement	6
	Research question	7
	Objectives	7
	Operational definitions	8
	Conceptual framework	9
	Summary	10
2.	**CHAPTER II REVIEW OF LITERATURE**	17
3.	**CHAPTER III MATERIALS AND METHODS**	19
	Research approach	19
	Research design	19
	Research setting	19
	Population	19
	Sample	20
	Sampling criteria	20
	Sampling technique	21
	Data collection tools/Instruments	21
	Validity and reliability of the tools	23
	Ethical consideration	27
	Pilot study	29
	Procedure of data collection	30
	Plan for data analysis	34
	Summary	35
4.	**CHAPTER IV RESULT**	42
5.	**CHAPTER V DISCUSSION**	43

	Major findings of the study	44
	Discussion	45
	Limitations	45
	Implications	46
	Conclusion	46
	Recommendations	47
	Summary	48
6.	**REFERENCES**	
7.	**ANNEXURES**	

LIST OF FIGURES

S. NO.	TITLE	PAGE NO.
1.	Frequency and percentage distribution of sample according to socio-demographicvariables.	27
2.	Comparison of frequency & percentage distribution of pre-test knowledge score in experimental and control group.	32
3.	Comparison of frequency & percentage distribution of Post-test knowledge score in experimental and control group.	34
4.	Showing comparison between Experimental and Control Group with Independentt Test	31
5.	Showing comparison between the Groups with Independent t Test of post test scores.	32
6.	Showing comparison within the Experimental Group with Paired t test of knowledge Scores	33
7.	Showing comparison within the Control Group with Paired t test of knowledge Scores	34
8.	Association of Pretest knowledge scores and socio-demographic variables for experimental and control group	35

LIST OF FIGURES

S.NO.	TITLE	PAGE NO.
1.	Conceptual framework based on general system model	7
2.	CONSORT diagram for Randomized Control Trial	27
3.	Bar Graph showing Mean Score and Standard Deviation of Pretest knowledge of post operative mechanical heart valve patients.	34
4.	Bar Graph showing Mean Score and Standard Deviation of Post test knowledge of post operative mechanical heart valvepatients	37

LIST OF ANNEXURES

S. NO.	TITLE
1.	Data collection tool- English version.
2.	Data collection tool- Hindi version.
3.	Letter seeking permission for tool validation.
4.	List of experts.
5.	Evaluation criteria for validation of the tool
6.	Certificate of validation
7.	Language validation certificate.
8.	Letter seeking permission to conduct the study.
9.	Permission for using tool in study.
10.	Participant Information sheet (English).
11.	Participant Information sheet (Hindi).
12.	Participant Informed consent form
13.	Coding of master data sheet
14.	Master data sheet

LIST OFABBREVIATIONS

ACs	Anticoagulant
AIIMS	All India Institute of Medical Sciences
CONSORT	Consolidated Standards of Reporting Trials.
VHD	Valvular Heart Disease
VATM	Video Assisted Teaching Module
AF	Atrial fibrillation
IHEC-SR	Institutional Human Ethical Committee- Student Research
ACs	Anticoagulant
SNOSE	Sequentially Numbered Opaque Sealed Envelopes.
RHD	Rheumatic Heart Disease
VKAs	vitamin K antagonists
IHEC-SR	Institutional Ethics Committee- Student Research
SPSS	Statistical Package for Social Sciences
SD	Standard Deviation
CONSORT	Consolidated Standards of Reporting Trials.
CI	Confidence Interval
CTVS	Cardiovascular and thoracic surgery
ICU	Intensive Care Unit

LIST OF SYMBOLS

Sl.no.	Symbols	Expansion
1.	N	total no. of samples
2.	f	frequency
3.	%	Percentage
4.	χ^2	chi-square test
5.	df	degree of freedom
6.	¥	Fisher exact test

CHAPTER I

INTRODUCTION

CHAPTER I

INTRODUCTION

Background of the study

Valvular heart disease is a general term referring to dysfunction of the valves and is primarily in two forms; regurgitation, (also insufficiency, or incompetence) where a dysfunctional valve lets blood flow in the wrong direction, or stenosis, when a valve is narrow.[1] Around the world, there are significant differences in the epidemiology of VHD. In high-income nations, the illness is primarily degenerative and functional, while in low- and middle-income countries; the disease is primarily rheumatic heart disease.[2] In Italy, screening for subclinical RHD in refugees showed a 2.1% prevalence, which is similar to rates in Mozambique (3%), Cambodia (2.2%), India (2.0%), and other industrialized nations despite reports of RHD eradication.[3]

RHD causes around 300,000 deaths annually and affects 15.6 million individuals globally.[3] Typically, mammalian hearts have four valves that collectively determine the path of blood circulation. The opening and closing of a heart valve depend on the varying blood pressures on each side. These valves in the heart act like gates, making sure blood goes in the right direction and keeps the pressure needed for the blood to circulate and keep us alive.[3, 4]

Valvular dysfunctions, particularly those involving the aortic valve and associated with calcification-induced stiffening (stenosis), represent a serious clinical concern. This pathological phenomenon restricts the aortic valves' optimal functioning during both systole and diastole. Consequently, this condition leads to left-ventricular hypertrophy, significantly amplifying the risk of adverse cardiovascular events such as myocardial infarctions and strokes. [5]

The treatments for such diseases rely on medicine, valve repair, and artificial heart valves including mechanical and bioprosthetic valves.[6] However, in order to prevent clots on the valves, which are linked to uncontrollably bleeding and can result in serious morbidity, patients must get long-term blood thinner treatment.[6] The materials used in the majority of modern bileaflet mechanical valves are stainless steel, pyrolytic carbon-coated graphite leaflets, titanium housing, and an inner ring composed entirely of pyrolytic carbon.[7]

Since excessive therapeutic anticoagulation is utilized to lower the risk of thrombus formation; the most frequent issue with mechanical valves is the potential for significant bleeding. Lifelong anticoagulant therapy is required for the patient, which raises the risk of bleeding from both small and large trauma. Fetal loss and congenital deformity are linked to oral anticoagulant use during pregnancy in women with prosthetic valves.[7] Mechanical valves offer prolonged durability, rendering them appealing for younger individuals. However, their primary drawback persists in their thrombogenic nature, resulting from interaction with circulating blood elements and the non-natural flow pattern over the bileaflet valve. Presently, lifelong anticoagulant therapy with vitamin-K antagonists (VKAs) remains imperative to prevent thrombosis associated with mechanical valves.[8]

Activation of both intrinsic and extrinsic coagulation pathways causes thrombus development on mechanical valves. When the synthetic material comes into touch with components of the bloodstream, contact activation takes place, starting the intrinsic route. Extrinsic pathway activation is further caused by shear stresses generated by the non-physiological flow over the valve.[8] Circulation patterns that are not normal occur around the mechanical heart valves and contribute to the formation of thrombus. Mixed blood composition is caused by high turbulent shear forces during valve opening.

It makes it easier for blood platelets to engage with the endothelium and create clots rich in platelets.[8, 9] All patients with valvular heart disease, especially those with artificial heart valves, should take oral vitamin K antagonists (VKAs) to avoid thromboembolism in the vein or artery, according the guidelines. [11] Several coagulation factors, including II, VII, IX, and X, are inhibited by vitamin K-dependent g-carboxylation, which is what stops blood coagulation when VKAs are taken.[10]

Required international normalised ratio levels are dependent on the location of the valve (mitral>aortic), type of valve (ball and cage vs bilealfet vs On-X bilealfet) and rhythm. [13] Aiming for high-quality anticoagulation management with a time in the therapeutic range greater than 70% is crucial. The HAS-BLED (hypertension, abnormal renal/liver function [1 point each], stroke, bleeding history or predisposition, labile international normalized ratio, elderly (0.65), drugs/alcohol concomitantly [1 point each]) score used to assess the risk of bleeding where high risk patients (≥ 3) should be reviewed and followed up more frequently. [14]

Attention to modifiable bleeding risk factors (e.g., uncontrolled BP, labile international normalized ratios, concurrent use of aspirin or nonsteroidal anticoagulated patient, excess alcohol consumption) should be made at every patient interaction.[14, 15]

Diffusion-weighted magnetic resonance imaging at 6 days after TAVR revealed new brain lesions in 66.7% of patients treated with dual antiplatelet therapy (DAPT) and 84.2% of patients treated with oral anticoagulation (OAC), a difference that was not statistically significant (P = 0.15). This was one of 123 patients in the AUREA (Dual Antiplatelet Therapy Versus Oral Anticoagulation for a Short Time to Prevent Cerebral Embolism After TAVR) [16]

A small randomized comparison of acenocoumarol and dual-antiplatelet therapy (DAPT) in patients with no baseline indications for OAC between the two antithrombotic strategies, there was no difference in the incidence of new brain lesions after three months.[17]

Risk factors associated with thrombotic or ischemic complications, as well as bleeding complications, in patients undergoing transcatheter aortic valve replacement warrant careful consideration.Concurrently, it is essential to establish comprehensive guidelines for the administration of antithrombotic therapy, both before and after the procedure.[17]

Patients on Oral anticoagulants still encounter risks of thrombotic recurrence or major bleeding. Studies like RE-LY have established correlations between dabigatran plasma concentration and ischemic strokes and bleeding outcomes. Similar associations were observed for edoxaban plasma concentration and clinical outcomes.[18]

Need for the study

Anticoagulants are widely used to prevent and treat thromboembolic events, but are also high-risk medications. They are associated with increased risk of bleeding and are one of the top drugs causing emergency room.

Overlooked public health concerns encompass rheumatic heart disease and rheumatic fever. Rheumatic heart disease stands out as the most common form of acquired heart ailment among individuals below the age of 25.[18]

The study, published in the Journal of Health Education Research and Development, employed qualitative descriptive methods, orchestrating five focus group discussions across health regions in Southwestern Ontario from 2017 to 2018. The participants, totaling 42 individuals including patients, caregivers, and healthcare providers, engaged in discussions encompassing their experiences with OAC education. Through conventional content analysis, the study unveiled five thematic pillars of patient education on OAC management: the content of OAC education, opportune times for its administration, preferred delivery strategies, the involvement of patient and community pharmacists, and perceived barriers to optimal education. [19]

These findings collectively underscore the consensus among patients, caregivers, and healthcare providers on the imperative need for effective OAC education, extending even to patients under direct oral anticoagulants (DOACs). The study advocates for further research to pinpoint the specific content, format, duration, timing, and sources that constitute the optimal amalgamation for OAC education.[19]

Research indicates that individuals tend to forget approximately 80% of the information they receive during medical appointments. Furthermore, of the remaining 20% retained, only half is accurately remembered. The current recommendations from the American Society of Hematology (ASH) regarding the best practices for anticoagulation therapy

management propose offering additional educational support to patients initiating anticoagulation therapy.

Patients undergoing heart valvular surgery face potential risks, including postoperative surgical site infections, bleeding, as well as emotional challenges such as depression, anxiety, or posttraumatic stress disorder. A well-structured plan that focuses on proper care, thorough postoperative care understanding, and effective home care management is crucial for enhancing recovery after heart valvular replacement.[22]

Patients with mechanical heart valves must adhere to a continuous anticoagulant drug regimen throughout their lives. It is essential for them to be well-informed about the specifics of anticoagulant drug therapy to minimize future risks associated with these medications.[20-22]

The researcher has observed instances where individuals revisit healthcare settings with complications related to valve blockage, often stemming from irregular anticoagulant adherence. Thus, the present study is undertaken by the researcher to address and understand this recurring issue.

Research problem statement

"A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal".

Research Question

1. What is the knowledge of postoperative patients with mechanical heart valve on anticoagulant drug therapy?

2. What is the effectiveness of video-assisted teaching programme on knowledge

3. of post operative patients with mechanical heart valve regarding anticoagulant drug therapy?

4. What is the effectiveness of video-assisted teaching programme on knowledge of post operative patients with mechanical heart valve regarding anticoagulant drug therapy?

5. What is the effectiveness of video-assisted teaching programme on knowledge of post operative patients with mechanical heart valve regarding anticoagulant drug therapy?

Objective:

1. To assess the pretest knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.

2. To assess the post test knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.

3. To determine the effectiveness of video assisted teaching programme on knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve

4. To find the association between pretest knowledge score and sociodemographic variables among post operative patients with mechanical heart valve.

Operation Definitions

Effectiveness: - It refers to the increase in knowledge on anticoagulant drug therapy among post operative mechanical heart valve patients through video assisted teaching programme.

Video-assisted teaching programme: It refers to the systematic information provided to the patient on anticoagulant drug therapy through audio visual aid.

Knowledge: It refers to the correct response of postoperative patients with mechanical heart valve to questions about anticoagulant drug therapy as assessed by structured knowledge questionnaire.

Anticoagulant: A substance that is used to prevent and treat blood clots in blood vessels and the heart and is prescribed to the postoperative patients with mechanical heart valve.

Drug Therapy: It refers to using a prescribed medication exactly as ordered by the physician, also watching the side effects and managing the side effects of the anticoagulants.

Mechanical heart valve: It refers to an artificial heart valve made up of metallic device implanted in a patient with valvular heart disease.

HYPOTHESIS

H0- There is no significant difference between pretest and post test knowledge score on anticoagulant drug therapy among post operative patients with the mechanical heart valve at 0.05 level of significance.

H1- There is a significant difference between pretest and post test knowledge score on anticoagulant drug therapy among post operative patients with the mechanical heart valve at 0.05 level of significance.

DELIMITATIONS

- The study is delimited to postoperative mechanical heart valve cardiac patients of AIIMS Bhopal.

Conceptual Framework

The foundation of this study's conceptual framework draws upon the principles of general system theory, as articulated by Ludwig Von Bertalanffy in 1968. The framework encompasses key components such as input, process, output, and feedback. In this conceptual framework, a system is defined as a collection of elements that collaborate to attain a specific objective through interactions. An individual is considered a system, as they receive input from their surroundings. Upon processing this input, the individual generates an output.

Every living system operates as an open entity, engaging in ongoing exchanges of matter, energy, and information. The system functions in a cyclical and continuous manner, sustained by the interactions of its four components: input, process, output,and feedback. Any alterations in one of these components will result in changes throughout the entire system. Feedback, originating from within the system or the environment, offers valuable information that aids the system in assessing whether it is achieving its objectives or requires adjustments.

INPUT:

In present study post operative patients with mechanical heart valve are a system with input from self and those acquired from the environment. These inputs include patient's socio demographic data including age, gender, education, religion, type of family, occupation, income, marital status, previous history of any surgery, aware of the drug prescribed which may influence the knowledge of patients about anticoagulant.

PROCESS - after the input is absorbed by the system; it is processed in a way useful to the system. Here the researcher assessed the post operative mechanical heart valve patients through self structured knowledge questionnaire for knowledge.

OUTPUT: Output- output from a system is a energy; matter of information disposed of by the system as a result of its process. In this study the output were depicted as follows:

➢Favorable outcome- knowledge gain

➢Unfavorable outcome- inadequate knowledge

FEEDBACK: Feedback refers to internal information about functioning of the system. In this study feedback is not included.

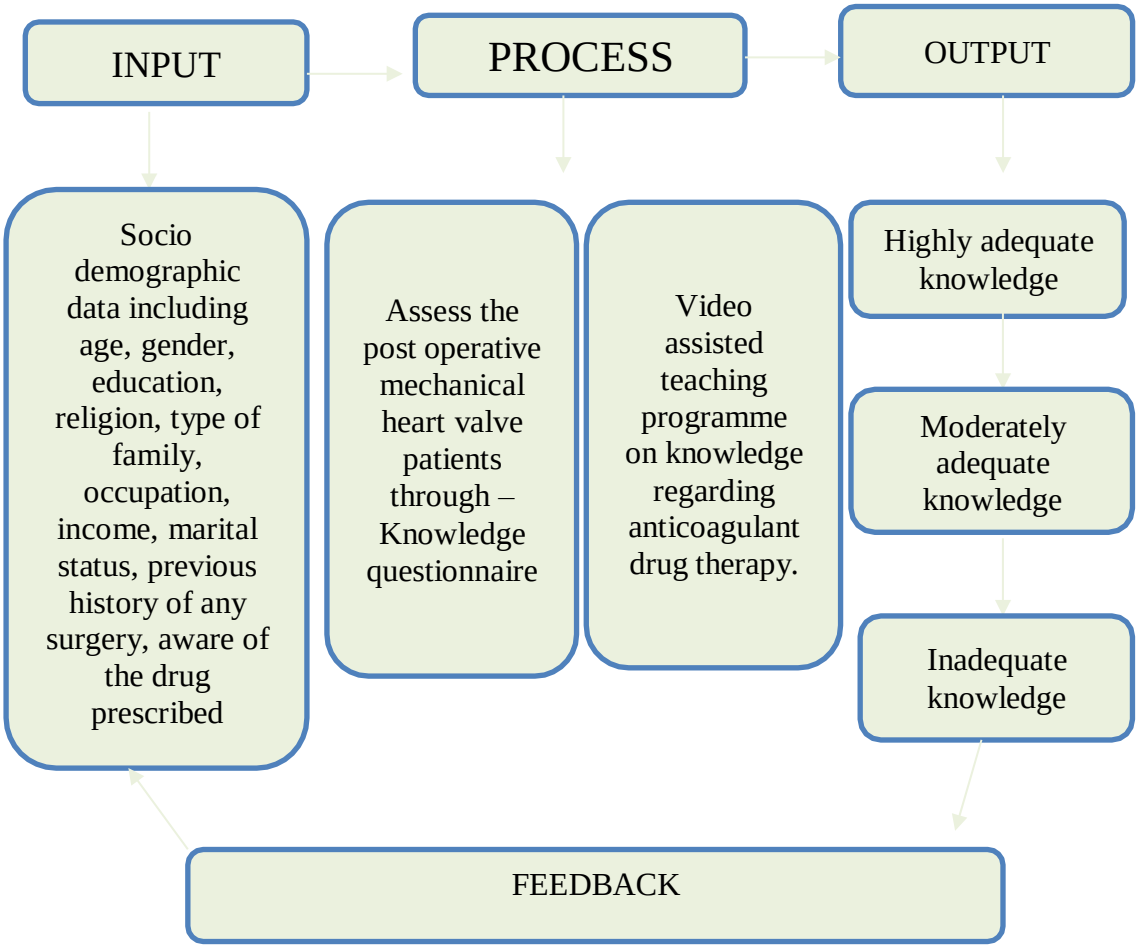

INPUT
PROCESS
OUTPUT
Socio demographic data including age, gender, education, religion, type of family, occupation, income, marital status, previous history of any surgery, aware of the drug prescribed
Assess the post operative mechanical heart valve patients through – Knowledge questionnaire
Video assisted teaching programme on knowledge regarding anticoagulant drug therapy.
Highly adequate knowledge
Moderately adequate knowledge
Inadequate knowledge
FEEDBACK

FIGURE NO.1 CONCEPTUAL FRAMEWORK BASED ON LUDWIG VON BERTALANFFY'S GENERAL SYSTEM THEORY

Summary: This chapter introduces the topic, specifies the need of study, aim of study , objectives, hypothesis, delimitations , operational definitions and conceptual framework of the study.

CHAPTER II

REVIEW OF LITERATURE

CHAPTER II

REVIEW OF LITERATURE

A literature review is systematically conducted to contextualize a research problem and pinpoint deficiencies in prior studies, thus warranting a new investigation. It forms the groundwork for generating fresh knowledge by delving into existing research, offering a conceptual framework, and guiding the research approach. The review aims to uncover past efforts, methodologies employed by other researchers, and how their findings can be amalgamated to advance understanding in the field.[21]

Extensive exploration of both research and non-research literature from platforms such as Google Scholar, PubMed, Scopus, Wiley Online Library, and Cochrane was conducted to acquire comprehensive insights into various facets of the current study's problem.

A study conducted by Priyadharshini V P. Kuzanthaivel, and S. Madhavi to evaluate the effectiveness of video-assisted teaching on the knowledge and self-care skills of patients who underwent valvular replacement surgery at KMCH, Coimbatore. Employing a pre-experimental research design, the study utilized non-probability purposive sampling to select a cohort of 30 subjects. The investigation aimed to assess the impact of video-assisted teaching on participants' knowledge and self-care skills, with a focus on demographic and clinical variables, such as age, sex, family history, and surgical details. The research incorporated standardized assessment tools, including a knowledge questionnaire, Katz basic activities of daily living (ADL), and the Lawton and Brody instrumental ADL scale. This comprehensive approach ensures a systematic evaluation of the effectiveness of video-assisted teaching in enhancing postoperative knowledge and self-care skills among patients who have undergone valvular replacement surgery.[22]

In a descriptive study conducted by Coffey et al, the research aimed to comprehensively investigate the global epidemiology of valvular heart disease (VHD). Published in Nature Reviews Cardiology in 2021, the study utilized a review design to analyze the prevalence and distribution of VHD across different regions, emphasizing variations between high-income and low-income/middle-income countries. The authors focused on forms such as rheumatic heart disease, calcific aortic stenosis, and degenerative mitral valve disease. The study, crucial in understanding the current state and trends of VHD, revealed historical reductions in mortality related to rheumatic heart disease since 1900 but observed a concerning surge in deaths from calcific aortic stenosis over the past two decades. This insightful analysis, informed by temporal trends, provides essential information for clinicians, researchers, and policymakers, guiding clinical practices and informing health policies globally.[23]

The study, carried out in (2019) in the context of India, aimed to assess the current status of rheumatic heart disease (RHD) in the country. The authors highlighted RHD as a significant cause of disease burden, particularly affecting the population during their prime and productive phases of life. The study emphasized the variations in RHD prevalence across different Indian studies, attributing them to diverse populations, different time points, and varying diagnostic screening methods. Notably, the absence of nationally representative data on incidence and prevalence underscored the need for a population-based surveillance system. The ultimate goal was to monitor trends, management practices, and outcomes, facilitating the development of informed guidelines for contextual interventions in the prevention and control of RHD.[24]

In a descriptive study conducted by Marijon et al., the authors delved into the persistent burden and challenges associated with rheumatic heart disease (RHD). Published in the European Heart Journal in 2021, the study focused on the global landscape of RHD,

highlighting its prevalence and impact on cardiovascular morbidity and mortality. The research aimed to comprehensively examine the ongoing challenges posed by RHD, emphasizing its disproportionate burden in developing regions despite being a preventable disease. Through a thorough analysis, the authors underscored the relative neglect and limited funding allocated to RHD compared to other infectious diseases, hindering medical advancements in the field for over five decades. The study emphasized the urgent need for a multi-faceted approach to RHD prevention, emphasizing improvements in social circumstances, early diagnosis, and effective antibiotic prophylaxis delivery. The study design encompassed a review of existing literature, providing a comprehensive overview of the challenges associated with RHD and proposing avenues for future research and intervention strategies.[25]

In a descriptive study conducted by DesJardin et al., the authors explored the landscape of valvular heart disease with a focus on sex differences and similarities. The study addresses the escalating burden of valvular heart disease among aging populations, particularly affecting women. The research underscores the shift from rheumatic valve disease to age-related degenerative causes, highlighting conditions such as calcific aortic stenosis and degenerative mitral regurgitation, particularly prevalent in elderly women with comorbidities. The study design involves a comprehensive review of existing literature, aiming to elucidate sex-based disparities in epidemiology, pathophysiology, diagnostic criteria, treatment options, outcomes, and prognosis in valvular heart disease. The authors draw attention to the historical underrepresentation of women in landmark studies, resulting in delayed surgical referrals and suboptimal postoperative outcomes for female patients compared to their male counterparts. The study concludes by advocating for a more inclusive approach to research, noting recent efforts to bridge the gender gap in clinical trials and studies, ultimately contributing to a more nuanced understanding of sex-specific aspects of valvular heart disease.[26]

In this study by Dixit et al., published in March 2023, the authors address the majority of the current wave of economic evaluations has focused on measures aimed at preventing rheumatic fever. Rheumatic heart disease, however, has more significant long-term effects because of the high expenses connected with managing the medical and surgical complications of rheumatic heart disease, as well as the secondary prophylaxis that is typically needed for lifelong prevention of rheumatic fever recurrence. For the management of rheumatic fever and rheumatic heart disease across India, the combined secondary and tertiary preventative measures and control plan is the most economical choice, and the people with the lowest incomes will probably benefit from public spending the most. Effective resource allocation for the avoidance and management of rheumatic fever and rheumatic heart disease in India can be influenced by the quantification of non-health gains, which offers compelling evidence[27]

In this meta-analysis by Noubiap et al., the objective was to assess the incidence, prevalence, and correlates of atrial fibrillation (AF) in patients with rheumatic heart disease (RHD) on a global scale. A systematic search identified 83 relevant studies involving 75,637 participants from 42 countries. The pooled analysis revealed a substantial global prevalence of AF in RHD at 32.8%, with variations noted in severe valvular disease. Cumulative incidence rates increased significantly over time after diagnosis. Factors associated with AF included age, advanced heart failure, tricuspid valve involvement, history of thromboembolism, highly sensitive C-reactive protein, systolic pulmonary arterial pressure, right atrium pressure, and left atrium diameter. This meta-analysis provides a comprehensive overview of AF in the context of RHD, contributing valuable insights for clinical understanding and future research endeavors.[28]

A descriptive study conducted by Prof. Dr. Jasmi Johnson, Akansha Verma, Anuradha, and Archita Maurya in 2022 in the hospital settings of Kanpur, Uttar Pradesh aimed to assess and enhance the knowledge of staff nurses regarding the prevention of phlebitis through the use of Visual Infusion Phlebitis (VIP) score. The study employed a Video Assisted Teaching Module (VATM) to educate 60 selected staff nurses. The pre-test results indicated that 24 nurses had inadequate knowledge, 32 had moderate knowledge, and 4 had adequate knowledge. Following the VATM intervention, a post-test was conducted after seven days, revealing improvements in knowledge levels. In the post-test, only 6 nurses exhibited inadequate knowledge, while 15 had moderate knowledge, and a substantial increase to 39 nurses showed adequate knowledge.[29]

The't' test analysis demonstrated a significant difference between pre-test and post-test knowledge levels ($p<0.05$), supporting the acceptance of the formulated research hypothesis (H1). Additionally, the chi-square test revealed a significant association between pre-test knowledge and selected demographic variables such as monthly income and previous knowledge.[29]

A prospective, single center randomized clinical study that took place in Dhiraj General Hospital, August 2017.

A total of 425 patients (controls [n = 210] and experimental [n = 215] patients) were randomized. This was a prospective randomized controlled trial comprised a group of patients who received detailed education about oral anticoagulants (OACs) and a control group who received standard management without education. This study tested the impact of regular patient education on drug therapy.[30]

In a descriptive study conducted by Helmut Baumgartner et al, the authors investigated the crucial aspect of the timing of intervention in asymptomatic patients with valvular heart disease (VHD). The study focused on optimizing long-term outcomes by timely intervention, particularly when faced with asymptomatic cases where decisions remain controversial. The aim of the study was to carefully weigh the potential benefits against the risks of intervention and its long-term consequences, addressing the constant challenge of determining the optimal timing for intervention in individuals without evident symptoms. The authors explored current recommendations, incorporating recently published data that challenges existing norms and advocates for even earlier intervention in specific cases. The study covered various valvular conditions, including aortic stenosis, aortic regurgitation, mitral stenosis, and mitral regurgitation, offering insights into the changing thresholds for intervention. The conclusions emphasized the dynamic nature of the optimal timing for intervention in adults with VHD, taking into account disease severity, safety, efficacy, and the long-term durability of available treatment options. This study contributes significantly to the ongoing discourse on refining intervention strategies for asymptomatic individuals with valvular heart disease.[31]

A study conducted in (2014) aimed to evaluate the safety-related knowledge of patients receiving the anticoagulant phenprocoumon in a primary care setting. The study enrolled 345 participants meeting the inclusion criteria of age over 18 years, undergoing oral anticoagulant therapy (OAT), and expressing willingness to participate.. Results indicated that, although most participants were aware of their indication for OAT (95%) and the frequency of coagulation status monitoring (82%), considerable knowledge gaps were evident in other domains. Specifically, 80% of participants lacked knowledge about the safest non-prescription analgesic, and 17%

indicated a preference for non-steroidal anti-inflammatory drugs (NSAIDs). Furthermore, 68% were unaware of the necessity to adhere to a specific diet, and a significant proportion did not recognize the impact of factors such as gastroenteritis, fasting, or non-prescription medicines on OAT effectiveness (82%, 86%, and 79%, respectively).[32]

A prospective, single-center, randomized clinical trial, conducted by Haridas AK and Bhat BS. (2018), the research took place at Dhiraj General Hospital from August 2014 to August 2017. In this investigation involving 425 patients, with 210 assigned to the control group and 215 to the experimental group, the primary aim was to assess the impact of systematic patient education on oral anticoagulants (OACs) compared to standard management without education. The research focused on patients undergoing oral anticoagulation for vascular procedures, cardiac valve replacements, and coronary artery bypass surgery with endarterectomy. Findings indicated that higher patient literacy was associated with increased awareness about OACs and adherence to prescriptions, with repeated educational sessions showing improvement even in poorly educated patients. The study underscored illiteracy and poverty as significant barriers to comprehensive education, potentially contributing to a higher rate of complications.[33]

A quasiexperimental research conducted by Chucherd et al. (2023) the authors investigated the impact of an online video-assisted teaching program on the learning outcomes of fourth-year medical students Statistical data revealed significant differences between the two groups. The online video-assisted teaching group exhibited a statistically better mean OSCE score (85.67 ± 11.29 vs. 73.87 ± 13.01, $p < 0.001$) and a higher mean post-test MCQ score compared to the traditional group (4.21 ± 0.87 vs. 3.80 ± 0.98, $p = 0.0232$).

Furthermore, the mean difference between the pre and post-test MCQ scores was significantly different, favoring the online video-assisted teaching program (1.79 ± 1.50) over the traditional group (0.96 ± 1.37, $P = 0.0038$). Although participants in the experimental group reported significantly greater confidence ($P < 0.001$) in performing the fractional curettage procedure, the mean satisfaction score was significantly higher in the control group ($p = 0.0053$).These statistical findings emphasize the efficacy of the online video-assisted teaching program in improving skills, knowledge, and confidence in fourth-year medical students, supporting its role as an effective procedural teaching method in medical education.

In this descriptive study conducted by Zhang et al., published in Nurse Education Today, the authors aimed to investigate the impact of a three-phase video-assisted debriefing (VAD) on nursing students' debriefing experiences, perceived stress, and facilitators' practices, in comparison to traditional verbal debriefing (VD). The study, conducted in a university setting in Singapore, adopted a mixed-methods design, combining a prospective controlled trial with quantitative measures such as the debriefing experience scale (DES), stress visual analogue scale (Stress VAS), and debriefing assessment for simulation in healthcare (DASH© student version). The statistical data indicated that students in the three-phase VAD group exhibited significantly improved debriefing experiences ($p = 0.01$), comparable stress levels, and more positive impressions of facilitators' practices ($p < 0.001$) compared to the VD group. The study concluded that the three-phase VAD not only enhanced nursing students' debriefing experiences without additional stress but also contributed to the improvement of facilitators' practices. The findings provide evidence-based support for the efficacy of the three-phase VAD in nursing education, suggesting potential avenues for further research in expert implementation and its impact on learning transfer and

cost-effectiveness.

The study conducted by Abdullah Bany Hamdan and colleagues, delves into the impact of video-assisted education on anxiety levels and knowledge enhancement in caregivers of pediatric patients undergoing intrathecal chemotherapy. The study, carried out in the pediatric hematology setting over one year, follows a prospective trial design and involves the random assignment of thirty-seven respondents to two groups. The first group receives conventional educational leaflets and verbal instructions, while the second group is exposed to the same information through an educational video presentation prior to the intrathecal chemotherapy procedure. The anticipated conclusion aims to shed light on the potential efficacy of video-assisted education in ameliorating anxiety and improving knowledge in the unique context of intrathecal chemotherapy for pediatric patients.

A descriptive study conducted by **Egbodo et al.,** aimed to enhance students' retention of knowledge in Basic Science and Technology. The study, conducted in Benue, Nigeria, utilized a non-randomized control group, pretest-posttest quasi-experimental design. The authors developed Machine-Assisted Learning (MAL) and Virtual Science Laboratory (VSL) apps as pedagogical strategies, comparing them with the traditional expository teaching method. The study population comprised 27367 Upper Basic II students, with a sample of 202 selected using a multistage sampling technique.

The instrument for data collection was the Basic Science and Performance Test (BSTPT), transformed into the Basic Science and Technology Retention Test (BSTRT) after validation and reliability analysis (KR-21 = 0.94). Data analysis involved mean, standard deviation, graphs, and Analysis of Covariance (ANCOVA) for four research questions and hypotheses at a 0.050 level of significance.

The findings indicated significant differences in mean retention scores among MAL, VSL, and Expository groups. Follow-up pairwise comparisons confirmed the superiority of MAL and VSL over the expository strategy. Gender disparities were found to be non-significant in MAL and VSL groups, and no significant interaction effect was observed between strategies and gender on students' mean retention scores.

In conclusion, the study affirmed that MAL and VSL apps significantly enhanced students' knowledge retention in Basic Science and Technology compared to the expository strategy. The authors recommended training for teachers in the development and implementation of MAL and VSL, given their positive impact on students' durable memory.

CHAPTER III

MATERIALS AND METHODS

CHAPTER III

MATERIALS AND METHODS

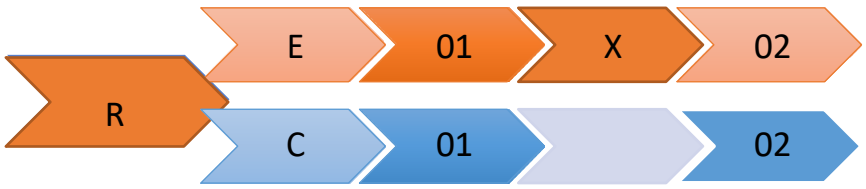
Research methodology is the systematic approach used in a study. It involves defining the problem, setting study goals, outlining data collection methods, using statistical techniques for data analysis, and explaining the rationale behind these choices. This chapter provides an overview of the methodology employed in the study, detailing the systematic progression through various stages and elucidating the methods, tools, and interventions utilized to achieve the study objectives.

Research approach

The research approach serves as the overall strategy that outlines the methods and steps for gathering and analyzing necessary information in a research study. In this study, a quantitative approach was utilized to achieve the research objectives, specifically to address the research questions and test the hypothesis.

Research design

In this study, a true experimental research design, specifically a Randomized Controlled Trial (RCT) was employed.



R= Randomization using sequentially numbered opaque sealed envelope.

E= Experimental group

C= Control group

X= Intervention (Video assisted teaching program)

01= Pre-test assessment of post operative patients with mechanical heart valve.

02= Posttest assessment of post operative patients with mechanical heart valve on day 4

METHOD OF RANDOMIZATION

Randomization is a fundamental aspect of the research design and serves as a key methodological strategy to minimize bias and enhance the internal validity of the study. In this RCT, the process of randomization was meticulously implemented to ensure that the assignment of participants to either the experimental or control group was entirely random and unpredictable.

In this study, randomization was achieved through the use of **sequentially numbered opaque sealed envelopes (SNOSE)**. This method involves preparing envelopes containing group assignments (experimental or control) with each envelope sequentially numbered. The envelopes are sealed to maintain confidentiality, and participants are randomly assigned to groups by selecting an envelope. This approach ensures that the allocation of participants is concealed and unpredictable, minimizing the risk of selection bias.

ALLOCATION RATIO- 1:1

Research variables

Research variables refer to those measureable quantities which are to be tested/measured in the study.

Dependent variable: - knowledge of post operative patient on anticoagulant drug therapy.

Independent variable:-video-assisted teaching programme on anticoagulant drug therapy.

Socio-demographic variable: Age, sex, religion, educational status, occupation, family type, marital status, habitat, previous knowledge about anticoagulants and information received from health care professionals

Extraneous variables: Previous knowledge about anticoagulants and information received from health care professionals.

Research setting

The present study was held at a government tertiary care hospital (AIIMS Bhopal) Madhya Pradesh, India. Specially CTVS ward and CTVS ICU of AIIMS, Bhopal

Population

The target population was postoperative patients undergoing anticoagulant therapy with a mechanical heart valve who are admitted to the CTVS Ward and CTVS (ICU) at AIIMS, Bhopal.

The accessible population was postoperative patients taking anticoagulant therapy with a mechanical heart valve and currently admitted in the CTVS Ward and CTVS ICU at AIIMS, Bhopal, who meet the criteria for inclusion in the study.

Sample

Sample is a group of people, objects or items that are taken from a larger population for measurement. The process of sampling makes it possible to draw valid inferences and generalisation. In this study the sample comprises of postoperative mechanical heart valve patients who fulfill the inclusion and exclusion criteria and who are willing to participate in the study with signed informed consent. This study consist of 40 subjects (20 control and 20 experimental)

Sampling technique:

Non probability convenient sampling was used in this study.

Sampling criteria

Inclusion criteria:

1) Patients with mechanical heart valve on anticoagulant therapy admitted postoperatively in CTVS ward and CTVS ICU AIIMS Bhopal.

2) Patients who understands and communicate in Hindi and English.

3) Patients who are above the age of 15 years.

Exclusion criteria:

1) Patients who are not available at any point of data collection.

2) Patients who are critically ill and are not hemodynamically stable.

3) Patients who cannot understand and communicate in Hindi and English.

Data Collection tools/Instruments

Data collection is defined as the procedure of collecting, measuring and analyzing accurate insights for research using standard validated techniques.

DEVELOPMENT OF TOOL

A self – structured questionnaire containing 20 items was prepared to assess the pre test and post test knowledge regarding anticoagulant drug therapy among post operative mechanical heart valve patients.

Tool for data collection

It will have two sections:-

SECTION 1) SOCIODEMOGRAPHIC QUESTIONNAIRE

Socio-demographic variable will include:- Age, sex, religion, educational status,

occupation, family type, marital status, habitat, previous knowledge about anticoagulants and information received from health care professionals.

SECTION 2) SELF STRUCTURED KNOWLEDGE QUESTIONNAIRE

It contains 20 questions to assess the knowledge regarding anticoagulant drug therapy for postoperative patients with mechanical heart valve. Each "correct" answer was given

a score of one and a score of zero was given for the "wrong" answer. The maximum score was 20.

The level of knowledge was categorize based on the scoring as follows; as

Score	**Level of knowledge**
16-20	Adequate knowledge
11-15	Moderate Knowledge
0-10	Inadequate Knowledge

VALIDITY OF TOOL

The content validity of both the tool and intervention protocol underwent assessment through the following procedure:

• Development of a content validation form

• Formation of a panel comprising experts

• Execution of content validation

• Examination of domains and items

• Assigning scores to each item

• Calculation of Content Validity Index (I-CVI and S-CVI)

Validity of Tool

Items of tool were prepared after reviewing relevant literature. Permission was obtained from concern authority for tool validation. It was sent to ten experts in the field of Medical Surgical Nursing (Cardiology/Cardiothoracic Vascular Nursing).Experts were requested to give their opinion and suggestions regarding each item of the tool in terms of highly relevant, quite relevant, somewhat relevant, and not-relevant .A remark column was provided for each item for experts to give their suggestions .Suggestions of the experts were incorporated. The socio- demographic questionnaire and self structured knowledge questionnaire tool was translated to Hindi by bilingual expert.

Tool from experts have been collected and content validity for each section have been calculated:

- S-CVI for Section 1= 0.99
- S-CVI for Section 2= 0.99
- S-CVI for Section 3= 0.97

RELIABILITY OF THE TOOL

Reliability calculated using **Test -Retest** method

- Section A- Socio – demographic Questionnaire

- Section B- Self structured knowledge questionnaire to assess the knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve **(r = 0.92)**

Reliability calculated using **split half** method

- Section A- Socio – demographic Questionnaire
- Section B- Self structured knowledge questionnaire **(r = 0.88)**

DESCRIPTION OF INTERVENTION

A video explaining about Anticoagulant drug therapy (Acitrom) was prepared by the researcher consultation from experts in field of Medical Surgical Nursing, CTVS.

It covers the following content:-

- Structure of the heart
- Heart Valve
- Normal heart functioning
- Heart valve disease
- Artificial Valve
- Blood coagulation
- Anticoagulants
- Storage and dosage
- PT INR monitoring
- Low doses and over doses of Anticoagulant
- Food regimen and lifestyle
- Special consideration (Pregnancy & Surgery)
- Frequently asked questions

- When to report a doctor.

Participant information sheet was given, and informed consent was obtained. Socio-demographic and clinical data was collected. Patients who were enrolled in the intervention group were given a video assisted teaching program on knowledge regarding anticoagulant drug therapy three times a day.

The video on anticoagulant drug therapy was a comprehensive resource covering various crucial aspects of heart health and medication. It began with an overview of the heart's anatomical structure and the role of heart valves, proceeding to explain normal heart functioning and the implications of heart valve diseases. It introduced the concept of artificial heart valves and delved into the intricacies of blood coagulation, highlighting the significance of anticoagulant medications. Practical information on the storage and dosage of anticoagulants was provided, along with insights into monitoring Prothrombin Time (PT) and International Normalized Ratio (INR). The video addressed the potential risks of low doses and overdoses of anticoagulants, emphasizing the importance of maintaining a therapeutic range. Dietary considerations, lifestyle modifications, and special considerations during pregnancy and surgery were discussed to support overall heart health. The video concluded by addressing frequently asked questions and empowering viewers to recognize signs that warranted immediate medical attention, reinforcing the importance of timely communication with healthcare professionals. [1,6,4]

The pretest was administered on the same day before delivering the intervention, providing a baseline assessment of participants' knowledge regarding anticoagulant drug therapy. Following the intervention, the post test data were collected on the third day from the participants. This temporal sequence allows for the evaluation of immediate knowledge retention and the potential impact of the video-assisted teaching program on participants' understanding of anticoagulant drug therapy within a short

timeframe. The choice of a pretest-post test design enables the examination of changes in knowledge levels, providing valuable insights into the effectiveness of the intervention over the brief intervention period.

ETHICAL CONSIDERATION

Ethical clearance was obtained from Institutional Human Ethical Committee- Student Research; AIIMS Bhopal LoP has been received on 28/02/23. Permission was obtained from Medical Superintendent for conducting the study. Permission for using the tools were obtained from respective authors Participant information sheet was prepared, explained and given to all participants to make aware about the study. Informed consent was obtained from participants. Privacy, anonymity and confidentiality of the data were assured. Questionnaires were stored under lock and key with the access to researchers only.

PILOT STUDY

Pilot study is a smaller version of a study carried out before the actual investigation is done. Researcher use information gathered in pilot study to refine or modify the research methodology for a study and to develop large scale studies. Pilot study was conducted with a sample size of 10 percent of inclusion criteria to check the effectiveness of criterion measures and to find out feasibility of tool, intervention and methodology.The tool was found to be reliable, valid and practicable. The language used in the test items and interventions was found to be appropriate and clear. The tool and intervention were finalised for the main project and arrangement was made for data collection.

PROCEDURE OF DATA COLLECTION

- Screening using Inclusion and Exclusion criteria
- Full disclosure regarding study participation and informed consent
- Random allocation into Experimental and Control group
- Pre-test data collected from post operative mechanical heart valve patients by using

- self-structured questionnaire to assess knowledge regarding anticoaguant
- Intervention (Video education on anticaogulant drug (acitrom) provided to sample drug therapy
- Post test administered on Day 3.

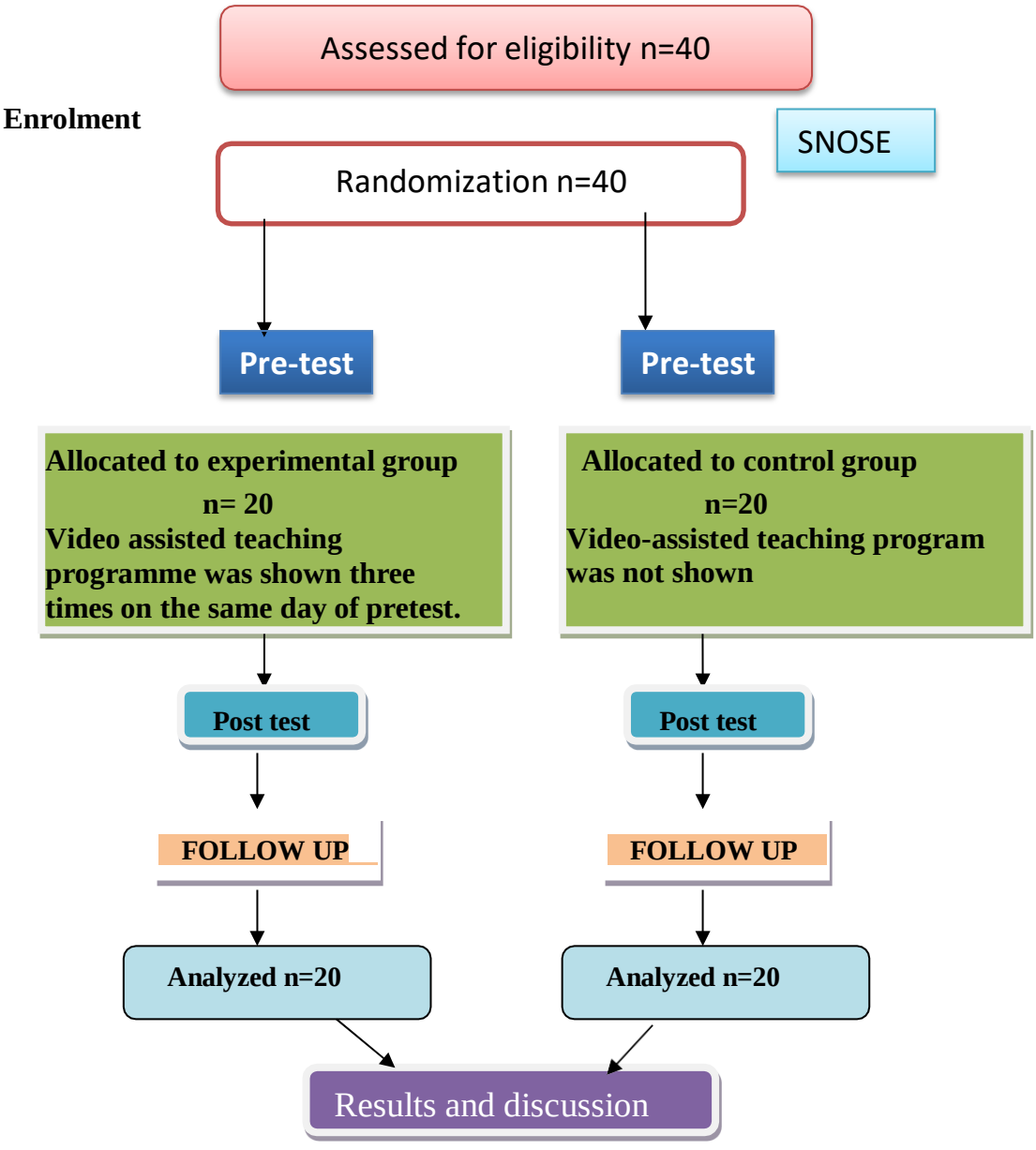


Figure No. 2 CONSORT Diagram of Randomized Control Trial

PLAN FOR DATA ANALYSIS

Data was analyzed using Microsoft excel and IBM's SPSS software version 20 by using descriptive and inferential statistical techniques. Data from socio demographic questionnaire, self-structured knowledge questionnaire for knowledge regarding anticoagulant therapy was analysed by using descriptive and Inferential statistics. The descriptive statistics includes frequency and percentage distribution tables. Inferential statistics included in chi square test, t –test. Association between pre test knowledge with selected demographic factors was checked using inferential statistics including chi square test (fisher's exact).

SUMMARY

This chapter deals with description of research approach, research design , research setting population , sample and sampling technique , selection and development of tool , validity of tool , reliability of tool , ethical consideration , pilot study, final data collection procedure and procedure of data analysis**.**

CHAPTER-IV
RESULT

Analysis is the process of organizing and synthesizing the data so as to answer the research question and test hypothesis. The purpose of analysis is to reduce the data into an interpretable and meaningful form so that the result can be compared and significance can be identified.[31] It is one of the important parts of research where data collected is systematically analyzed and interpreted.[54] The data was collected from 40 post operative patients with mechanical heart valve i.e. 20 in experimental group and 20 in control group, through socio-demographic questionnaire, self structured knowledge questionnaire. The raw data was entered into excel sheets, was analysed, classified and presented in tabulated or graph as per the objectives and hypothesis of the study. Quantitative data was analysed by using SPSS 20.0 version software. All data were tabulated and summarized in the master data sheets.

Objectives of the study

1. To assess the pretest knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.
2. To assess the posttest knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.
3. To determine the effectiveness of video assisted teaching programme on knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve.
4. To find the association between pretest knowledge score and sociodemographic variables among post operative patients with mechanical heart valve

Hypothesis

H0- There is no significant difference between pretest and post test knowledge score on anticoagulant drug therapy among post operative patients with the mechanical heart valve at 0.05level of significance.

H1- There is a significant difference between pretest and post test knowledge score on anticoagulant drug therapy among post operative patients with the mechanical heart valve at 0.05level of significance.

Plan of Analysis

Analysis and interpretation of data was done according to the objectives using descriptive and inferential statistics. The level of significance chosen was at $p \leq 0.05$.

Organization of Analyzed Data

The analyzed data was organized according to the objectives and presented under the following sections:

Section I: Patient characteristics

Section II: Pretest knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.

Section III: Post test knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.

Section IV: Effectiveness of Video assisted teaching program.

Section V: Association of pretest knowledge scores with socio-deemographic variables.

Section I: Patient characteristics.

Table 1

Frequency and percentage distribution of sample according to socio-demographic variables.

N=40

	Experimental Group		**Control Group**	
Age	Frequency	Percent	Frequency	Percent
below 18	0	0	0	0
18-36 yrs	11	55.0	7	35.0
37-55yrs	7	35.0	8	40.0
56-74yrs	2	10.0	5	25.0
Gender				
Male	9	45.0	10	50.0
Female	11	55.0	10	50.0
Education				
Professional	0	0	0	0
Graduate	0	0	1	5.0
Intermediate or diploma	3	15.0	2	10.0
High school	5	25.0	7	35.0
Middle School	7	35.0	4	20.0
Primary School	3	15.0	5	25.0
Illiterate	2	10.0	1	5.0
Religion				
Hindu	20	100.0	19	95.0
Christian	0	0.0	1	5.0
Muslim	0	0	0	0
Other	0	0	0	0
Total	20	100.0	19	95.0
Type of family				
Nuclear	6	30.0	7	35.0
Joint	14	70.0	13	65.0
Occupation				
Government	3	15.0	2	10.0

Unemployment	1	5.0	2	10.0
Private	7	35.0	9	45.0
Medical	0	0	0	0
Agricultural	4	20.0	5	25.0
Others	5	25.0	2	10.0
Family income				
≤9307 Rs	2	10.0	4	20.0
9308-27882 Rs	11	55.0	9	45.0
27883-46474Rs	6	30.0	7	35.0
46475-69534Rs	1	5.0	0	0.0
69535-92950Rs	0	0	0	0
92951-185894Rs	0	0	0	0
≥185,895Rs	0	0	0	0
Marital status				
Unmarried	1	5.0	3	15.0
Married	19	95.0	17	85.0
Previous history of any surgery				
Yes	6	30.0	8	40.0
No	14	70.0	12	60.0
Are you aware of anticoagulant prescribed?				
Yes	17	85.0	17	85.0
No	3	15.0	3	15.0

Table No. 1 represents a description of the sociodemographic profile of patients, which includes:

- Age, gender, education, religion, type of family, occupation, family income,marital status, previous history of any surgery, Are you aware of anticoagulants?
- The majority of participants were between the ages of 18 and 36 (55%) in the experimental group and 37 and 55 (40%) in the control group.
- The majority of participants were female (55% experimental, 50% control).

- The majority of participants had completed education until middle school (35%) in the experimental group and high school education (35%) in the control group.
- The majority of participants belong to the Hindu religion (100%) in the experimental group and in the control group (95%).
- The majority of participants in both groups belonged to joint families; 70% were experimental and 65% were control.
- The majority of participants were doing private jobs in the experimental group (35%) and in the control group (45%).
- The majority of participants in both the experimental (55%) and control groups (45%) had family incomes of 9308–27882 rupees.
- The majority of participants in both the experimental (95%) and control groups (85%) were
- The majority of participants in both the experimental (70%) and control groups (60%) had no previous history of any
- The majority of participants in both the experimental (85%) and control groups (85%) were aware of the anticoagulant.

Section II: Pretest knowledge of post-operative patients with mechanical heart valve on anticoagulant drug therapy.

Table 2

Comparison of frequency & percentage distribution of Pretest knowledge score in experimental and control group. **N=40**

Criteria Measure of Pretest Knowledge Score		
Category Score	**Experimental**	**Control**
High Knowledge (16-20)	0(0%)	0(0%)
Average Knowledge (11-15)	0(0%)	0(0%)
Low Knowledge (6-10)	9(45%)	10(50%)
Very Low Knowledge (1-5)	11(55%)	10(50%)

As Interpretation

Table No. 2 depicts

that:

Experimental Group:

In the “Experimental" group, none achieved high or average knowledge scores (0%). Most participants, 45.0%, fell into the low knowledge category (9 individuals), while 55.0% had very low knowledge (11 individuals), indicating a predominance of lower knowledge levels in this phase.

Control Group:

In the “Control" group, none of the participants attained High Knowledge or Average Knowledge scores, registering 0% in both categories. An equal distribution of 50% was observed, with 10 individuals each falling into the Low Knowledge and Very Low Knowledge categories.

Section III: Post-test knowledge operative patients with mechanical heart valves on anticoagulant drug therapy.

Table 3

Comparison of frequency and percentage distribution of post-test knowledge scores in the experimental and control groups. **N=40**

Criteria Measure of Post test Knowledge Score		
Category Score	**Experimental**	**Control**
High Knowledge (16-20)	8(40%)	0(0%)
Average Knowledge (11-15)	**12(60%)**	0(0%)
Low Knowledge (6-10)	0(0%)	10(50%)
Very Low Knowledge (1-5)	0(0%)	10(50%)

As-Interpretation Table No 3 depicts that:

Experimental Group:

In the "Post-test Experimental" group, no one scored in the Low or Very Low Knowledge categories (0%). Instead, 40% demonstrated High Knowledge (8 participants), and 60% achieved Average Knowledge (12 participants).

Control Group

In the “Control" group, none of the participants achieved High Knowledge or Average Knowledge scores, reflecting 0% in both categories. Instead, there was an equal distribution, with 50% of participants (10 individuals) falling into the low knowledge category. Additionally, the remaining 50% of participants (10 individuals) obtained very low knowledge scores.

Section IV: Effectiveness of Video assisted teaching program.

Table 4

Comparison of the Experimental and Control Group's Pretest Knowledge Scores Using an Independent t Test

n=20

Pretest knowledge Scores									
Group	**n**	**Mean**	**Std. Error**	**SD**	**df**	**t**	**95%CI**		**Result**
							lower	upper	
Experimental	20	5.55	0.58	2.6	38	-2.64	-1.735	1.335	P=0.793
Control	20	5.75	0.48	2.17			-1.737	1.337	

t- t test, SD= standard deviation, df= degree of freedom, SD=standard deviation, CI=confidence interval, n= total no. of samples

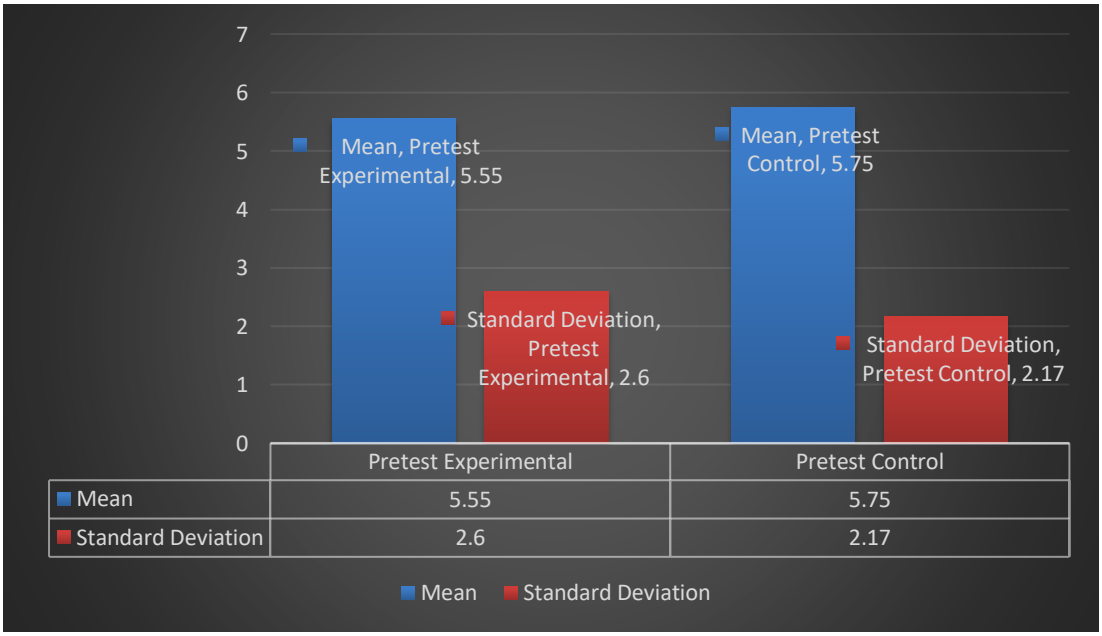


Figure 3 Bar Graph showing Mean Score and Standard Deviation of Pretest knowledge of post operative mechanical heart valve patients.

INTERPRETATION

Table No. 4 and Figure No. 3 show the comparison between the two group of pretest knowledge score. The experimental group has a mean of 5.55 (SD=2.6), while the control group has a mean of 5.75 (SD= 2.17). It reveals a p-value of (0.973), indicating no statistically significant differences.Importantly, there's no statistically significant distinction in mean pretest knowledge between the experimental and control groups. This suggests a comparable baseline knowledge level inboth groups.

Table 5

Showing comparison between the Group with Independent t Test for post test scores.

n=20

Post test Knowledge Score									
Group	**n**	**Mean**	**Std. Error**	**SD**	**df**	**t**	**95% CI**		**Result**
							lower	upper	
Experimental	20	14.9	0.416	1.86	38	14.6	7.84	10.35	**P=0. 00***
Control	20	5.8	0.462	2.06			7.84	10.35	

*Significant at 0.05 level of significance, t- t test, SD= standard deviation, df= degree of freedom, deviation, CI= confidence interval, n= total no. of samples

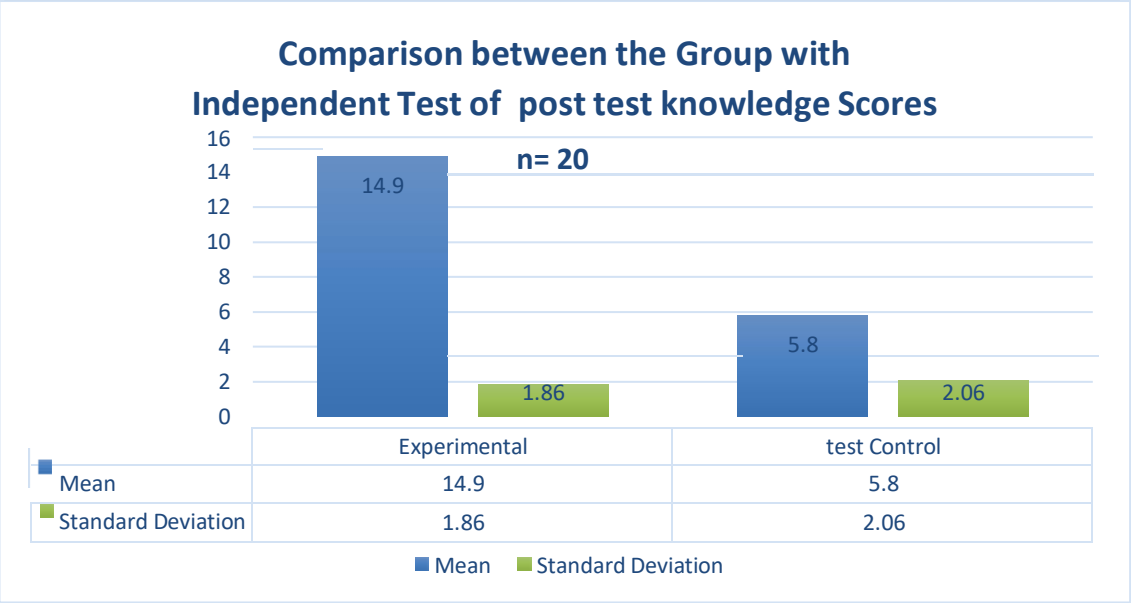


Figure 4 *Bar Graph showing Mean Score and Standard Deviation of Post test knowledge of post operative mechanical heart valve patients*

As Interpretation

Table No. 5 and Figure No. 4 depict the comparison of post-test knowledge scores between groups. The experimental group exhibits a mean of **14.9 (SD = 1.86),** whereas the control group has a mean of **5.8 (SD = 2.06).** Significantly, the obtained **p-value of 0.00** is less than the 0.05 level of significance. This signifies a significant difference in pretest and post-test knowledge scores related to anticoagulant drug therapy among postoperative patients with mechanical heart valves at the 0.05 level of significance.

Table 6

Showing comparison within the Experimental Group with Paired t test of knowledge Scores

n=20

Group	Mean	Std. Error	SD	df	Paired t	95% CI		Result
						lower	upper	
Pretest	5.5	0.582	2.6	19	-13.64	-10.78	-7.91	**P=0.0 0***
Post test	14.9	0.462	2.06					

*Significant at 0.05 level of significance, t- t test, SD= standard deviation, df= degree of freedom, deviation, CI= confidence interval, n= total no. of samples

As Interpretation

Table No. 6 depicts a comparison of knowledge scores in the experimental group using the paired t test. The analysis reveals a significant improvement in knowledge scores within the experimental group, with a **p-value of 0.00,** falling below the **0.05 level of significance**. The mean pretest knowledge is **5.5 (SD = 2.6)**, while the post-test knowledge mean rises to **14.9 (SD = 2.06)**. This underscores the effectiveness of the intervention in enhancing knowledge levels.

Table 7

Showing comparison within the Control Group with Paired t test of knowledge Scores

N=40

Group	Mean	Std. Error	Std. Deviation	df	Paired t test	95% CI		Result
						lower	upper	
Pretest l	5.75	0.48	2.17	19	-13.64	-0.68	0.58	P=0.87
Post test	5.8	0.46	2.06					

t- t test, SD= standard deviation, df= degree of freedom, deviation, CI=confidence interval, n= total no. of samples

Table No. 7 depicts comparison of knowledge scores in the control group using a paired t- test. The analysis reveals a non-significant difference between pretest and post-test control scores **(p = 0.87)**, exceeding the 0.05 level of significance. The mean pretest knowledge is **5.75 (SD=2.17)**, and the post-test knowledge mean remains relatively stable at **5.8 (SD=2.06)**. This suggests a consistent knowledge level within the control group, with no statistically significant changes observed.

Section V: Association of pretest knowledge scores with socio-demographic variables.

Table No 8

Showing the Association of Pretest Knowledge Scores and Socio-Demographic Variables for the Experimental and Control Groups

Sociodemographic variable	Experimental Group			Control Group		
	Fischer Exact value	df	P value	Fischer Exact value	df	P value
Age	0.37	2	1	0.945	2	1 (NS)
Gender	0.02	1	1	0.872	1	0.37(NS)
Education	5.95	4	0.23	3.482	5	0.73(NS)
Religion	It is a constant			1.05	1	1(NS)
Type of family	1.6	1	0.36	1.97	1	0.35(NS)
Occupation	7.98	4	0.7	3.89	4	0.58(NS)
Family income	1.87	3	0.7	0.45	2	1(NS)
Marital status	0.86	1	1	3.52	1	0.2 (NS)
Previous history of any surgery	0.87	1	1	0.8	1	0.6 (NS)
Are you aware of anticoagulant prescribed?	0.19	1	1	0.39	1	1 (NS)

As Interpretation

Table No. 8 depicts that the calculated chi-square (Fischer's exact) values were less the table value at the 0.05 level of significance. The sociodemographic characteristics of participants in the experimental and control groups were rigorously examined through Fischer exact tests. The results revealed no statistically significant differences in age distribution **(p = 0.945),** gender composition **(p = 0.872),** education levels **(p = 0.23)**, family types **(p = 0.36)**, occupation distribution **(p = 0.7)**, family income levels **(p = 0.7),** marital status (p = 1), previous history of surgery **(p = 0.6),** and awareness of prescribed anticoagulants (p = 1) between the two groups. These findings suggest a balanced and comparable distribution of sociodemographic variables, enhancing the internal validity of the study.

Summary: H0- There is no significant difference between the pretest and post test knowledge scores on anticoagulant drug therapy among postoperative patients with mechanical heart valves at the **0.05 level** of significance. (REJECTED).

CHAPTER-V

DISCUSSION

CHAPTER-V
DISCUSSION

This chapter includes major study findings, conclusion and discussion with reference studies. To explore further about effectiveness of video assisted teaching programme on knowledge regarding anticoagulant drug therapy among post operative patients with mechanical heart valve in AIIMS Bhopal, certain recommendations are made by researcher and implication of this research's finding in various fields of nursing also presented in chapter.

MAJOR FINDINGS OF THE STUDY

The major findings underscore significant demographic patterns within the study groups. Notably, the Experimental group primarily comprises individuals aged 18-36 years, constituting 55%, while the Control group is characterized by a higher representation in the 37-55 age range at 40%. Gender distribution reveals a balanced participation of females in both groups, with 55% in Experimental and 50% in Control. Educational backgrounds demonstrate an equivalent distribution, with a considerable proportion completing education up to middle school (35%) in the Experimental group and high school (35%) in the Control group.

Religious affiliation is predominantly Hindu, with 100% in the Experimental group and 95% in the Control group. Family structures predominantly lean towards joint family setups, encompassing 70% in the Experimental and 65% in the Control group. Occupational profiles reveal a prevalence of private jobs, constituting 35% in the Experimental group and 45% in the Control group.

Regarding socio-economic factors, both groups show a majority falling within the family income range of 9308-27882 rupees, accounting for 55% in experimental and 45% in control. Marriage is prevalent in both groups, constituting 95% in the

experimental group and 85% in the control group. Health-related factors highlight a majority with no previous surgery history (70% in Experimental, 60% in Control) and high awareness of prescribed anticoagulants (85% in both groups). The study's findings also revealed inadequate knowledge among patients regarding anticoagulant drug therapy.

Discussion

This study aimed to assess the effectiveness of a video-assisted teaching program on the knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valves in AIIMS Bhopal. The discussion is organized based on the study objectives, focusing on the findings and their implications.

Assess Pretest Knowledge

The pretest analysis revealed that a majority exhibited low to very low knowledge levels (45%) in the experimental and (50%) in the control group.No participants scored in the high or average knowledge categories. This suggests a baseline lack of understanding regarding anticoagulant drug therapy in the study population.

A study was conducted by Chenot JF, Hua TD, Abu Abed M, et al A total of 452 patients were randomized. There was no significant difference in the baseline score between experimental and control group ($P = 0.253$) [1]

Assess Posttest Knowledge

In the posttest analysis, the experimental group showed a significant improvement in

knowledge scores, with (40%) achieving high knowledge and (60%) achieving average knowledge. In contrast, the control group exhibited no improvement, with (50%) in the low knowledge category and 50% in the very low knowledge category.

Another similar study conducted by Haridas, Arun Kumar; Bhat, Bharathi Sridhar et al. A total of 252 patients had undergone various vascular procedures. The mean of the pretest for the experimental group was 2.93 (SD=1.50) and the mean of the posttest for the experimental group was 6.57 (1.82). There was a significant improvement in test scores after the experimental group attended the class (P = 0.0001) [2]

Effectiveness of Video-assisted teaching programme regarding anticoagulant drug therapy

In this study, when comparing pretest knowledge scores between the experimental and control groups, no statistically significant difference was observed. The mean pretest knowledge score for the experimental group was 5.55 (SD = 2.6, Standard Error = 0.58), while the control group had a mean pretest knowledge score of 5.75 (SD = 2.17, Standard Error = 0.48). However, in the posttest phase, the experimental group exhibited a substantial improvement. The mean posttest knowledge score for the experimental group was 14.9 (SD = 1.86, Standard Error = 0.416), with a p-value of 0.00, indicating statistical significance. This resulted in 40% of participants achieving high knowledge and 60% achieving average knowledge.

In contrast, the control group showed no improvement, maintaining a mean posttest knowledge score of 5.8 (SD = 2.06, Standard Error = 0.462). The lack of statistical significance in the control group posttest scores (p = 0.793) indicates the absence of

improvement.

A study was conducted by Metaxas C, Albert V, Habegger S, Messerli M, et al of all patients (n = 81), the number of patients with one or more knowledge gaps decreased from 66% to 31.3% after intervention ($p < 0.001$)[3]

Association with Sociodemographic Variables

In this study sociodemographic analysis demonstrated no significant differences between the experimental and control groups, affirming their comparability. Variables such as age, gender, education, family type, occupation, family income, marital status, previous surgery, and awareness of prescribed anticoagulants showed no association, reinforcing internal validity.

Limitations

- Sample Size: The study's reliance on a limited sample size .
- Short-Term Evaluation: The study's focus on short-term outcomes may not capture the sustained impact of the video-assisted teaching program on knowledge retention over an extended period.
- Single-Center Setting: The research was conducted in a specific healthcare setting, limiting the general izability of the findings to other institutions or diverse patient populations**.**

Implications

1. **Nursing Research:** The study underscores the need for further research with larger and more diverse samples to validate and generalize the effectiveness of

2. video-assisted teaching programs in different healthcare settings.
3. **Nursing Practice:** Healthcare providers should consider implementing tailored educational interventions to address knowledge gaps related to anticoagulant drug therapy among postoperative patients with mechanical heart valves.
4. **Nursing Education:** Nursing education programs should incorporate innovative teaching methods, such as video-assisted programs, to enhance knowledge acquisition and retention among students.
5. **Nursing Administration:** Hospital administrators and policymakers can use the study's findings to advocate for the integration of educational interventions into routine patient care protocols, aiming to improve patient outcomes and adherence to prescribed therapies.

Recommendations

1. **Expanded Research**: Future studies should explore the long-term impact of video-assisted teaching programs on knowledge retention among postoperative patients with mechanical heart valves. This could involve follow-up assessments at extended intervals to determine the sustained effectiveness of educational interventions.
2. **Diverse Populations**: To enhance the external validity of findings, researchers should conduct studies with diverse patient populations, considering factors such as cultural background, socioeconomic status, and geographic location. This would contribute to a more comprehensive understanding of the generalizability of educational interventions**.**
3. **Long-Term Follow-up Studies**: Conduct long-term follow-up studies to

assess the sustained impact of educational interventions on knowledge retention. This will provide valuable insights into the effectiveness of the video-assisted teaching program over an extended period.

4. **Comparative Effectiveness:** Investigate and compare the effectiveness of different educational methods, such as video-assisted teaching programs, printed materials, and interactive workshops, to identify the most efficient and patient-tailored approaches for improving knowledge on anticoagulant drug therapy.

Conclusion

The findings of the study revealed that patient's knowledge about anticoagulant drug was inadequate and video assisted teaching program was effective in improving knowledge levels of patients.

Summary

This chapter stated the major findings and discussed them in light of the available literature. Limitations, implications, recommendations and conclusion were stated.

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ANNEEXURES

ANNEXURE 1

DATA COLLECTION TOOL (English)

Tool for data collection

Section I: Socio demographic Questionnaire

Section II: Structured Questionnaire to assess the knowledge of post operative patients regarding anticoagulant drug therapy.

SECTION 1) SOCIODEMOGRAPHIC QUESTIONNAIRE

- ✓ Please give appropriate response to the following statements
- ✓ The information obtained will be kept confidential and is used only for the intended work.

1. Age

a) Below 18 years
b) 18-36yrs
c) 37-55yrs
d) 56-74yrs

2. Gender

a) Male
b) Female

3. Education

a) Post graduate
b) Graduate
c) Intermediate or diploma
d) High school
e) Middle school
f) Primary school
g) No formal education

4. Religion

a) Hindu

ANNEXURE 1

b) Christian

c) Muslim

d) Others

5. Type of family

a) Nuclear family

b) Joint family

6. Occupation

a) Government

b) Unemployment

c) Private

d) Medical

e) Agricultural

a) Others

7. Family income

a) ≤9307 Rs

b) 9308-27882Rs

c) 27883-46474 Rs

d) 46475-69534 Rs

e) 69535-92950 Rs

f) 92951-185894Rs

g) ≥185,895 Rs

8. Marital status

a) Married

b) Unmarried

c) Other

9. Previous history of any surgery?

a) Yes

b) No

10. Are you aware of the anticoagulant drug prescribed?

a) Yes

b) No

SECTION 2) STRUCTURED KNOWLEDGE QUESTIONNAIRE

Instructions: Kindly choose the most appropriate answer for each item. The information provided by you will be kept confidential and will only be used for research purpose.

1) Anticoagulant drugs (Acitrom) are also known as

a) Blood thinners

b)Blood coagulators

c) Vasodilators

d) Blood thickers

2. Which of the following vitamin helps in blood clotting?

a. Vitamin A

b. Vitamin C

c. Vitamin E

d. Vitamin K

3. Which sample is needed for checking clotting time?

a. Urine

b. Blood

c. Sputum

d. Swab

4. What is the normal time duration for blood clotting?

a.6 - 8 sec

b.4 - 9sec

c.10 - 13 sec

d.15 - 30 sec

5. What is the name of the investigation for checking the blood clotting?

a. Prothrombin time

b. Packed cell volume

c. Complete blood count

d. Bilirubin test

6. Which of the following foods is the most common source of vitamin K?

a) Spinach

b) Soybean oil

c) Cabbage

d) All of the above

7.What diet pattern should you follow after valve replacement surgery?

a. same as before

b. increase the intake of vitamin k rich foods

c. decrease the intake of vitamin k rich foods

d. avoid taking vitamin k rich foods

7. What happens when PT INR is high?

a. blood clotting is slow

b. blood clotting is fast

c. blood clotting is normal

d. none of the above

8. Where will you store anticoagulants (Acitrom)?

a. Refrigerator

b. Under direct sunlight

c. dry air tight container

d. Wet area

9. What is the best time to take an anticoagulant drug (Acitrom)?

a. Lunch time -12pm

b. Evening - 6pm (same time each day)

c. Morning - 6am (alternate days)

d. Any time of the day

10. How long are you expected to take anticoagulants (Acitrom) after surgery?

a. 1 month

b. 1 year

c. Depends on the type of heart valve replaced

d. Life long

11. What will you do if you forget to take your anticoagulant (Acitrom) tablet?

a. Skip the dose.

b. As soon as you remember on the same day.

c. Take two doses of tablet

d. Take ½ the tablet

12. What are the symptoms due to lower dose of an anticoagulant drug (Acitrom)?

a. Slurring of speech

b. Difficulty in breathing

c. Unconsciousness

d. All of the above

13. How will you know if the dosage is too high for an anticoagulant drug (Acitrom)?

a. Itchy skin

b. Rashes

c. Bleeding that takes longer time to stop.

d. Diarrhoea

14. What is the most common side effects of anticoagulant drug (Acitrom)?

a. Tendency to bleed easily

b. Chest pain

c. Head ache

d. Unconsciousness

15.What special precautions should be taken when you are on anticoagulant therapy (Acitrom)?

a. Do not go for walking.

b. Avoid injuries.

c. Change your diet plan.
d.
e. Reduce body weight.

16. Dose of anticoagulant (Acitrom) depends upon which of the following results?

a. PT/INR

b. Packed cell volume

c. Complete blood count

d. Bilirubin test

17. How to maintain the body weight when on anti coagulant drug (Acitrom)?

a. Increase the weight

b. Decrease the weight

c. Maintain constant body weight

d. Variable body weight

18. When do you have to inform other physicians and dentis about the intake of anticoagulants (Acitrom)?

a. Inform before the treatment

b. Not necessary to inform

c. Inform during the treatment

d. Inform after any complication occurs

19. What are the life style modifications to be followed while on anticoagulant drug (Acitrom)?

a. Stop smoking

b. Stop walking

c. Stop swimming

d. Stop fast food

ANNEXURE 2

<u>डेटा संग्रह उपकरण अनुभाग</u>

1)एं टीकोआगुलेंट थेरेपी पर मौके नकल हाट वाल्व के साथ पोस्ट ऑपरेनटव रोगयो के नलए समाजशास्त्रीय डेटा ·

कृ पया नि्ननिखित कथि पर उनित प्रनतनियिा दें ·
प्राप्त जानिकारी क ग पिीय रि ा जाएगा और के वि इखित काय के निए उपय ग नकया जाएगा।

1. आयु
a) 18 वर् से कम
b) 18-36 वर्
c) 37-55 वर्
d) 56-74 वर्

2. नलंग
a) पुरुर्
b) मनिि ा

3. नशक्षा
a)पेशेवर
b) स्नातक
c) इटरमीनिएट या नि्प्ल मा
d) ि ाई स्कूि
e) नमनि स्कू ि
f) प्राथनमक स्कूि
g) क ई औपिाररक नशक्षा ि ी

4.धम
a) नि दू
b) ईसाई
c) मुखिम
d) अन्य

5. पररवार का प्रकार
a) एकि पररवार
b) सयुक्त पररवार

6. व्यवसाय
a) सरकारी
b) बेर जगारी
c) नि जी ि ौकरी
d) मेनि कि
f) कृ नर्
g) अन्य

7. पाररवाररक आय

a) ≤9307 रु

b)9308-27882रु

c)27883-46474 रुd)46475-69534 रु

e)69535-92950 रुf)92951-185894रु

g)≥185,895 रु

8.वैवानहक स्थथनि

a)अनववानित

b) नववानित

9. नकसी भी सजरी का नपछला इनिहास

ए) िा

बी) ि

िी

10. क्या आप ननधाररि थक्कारोधी दवा के बारे मेंं जानिे हैंं?

ए) िा

बी) ि

िी

िी। नवटानमि के युक्त िाद्य

खंड 2) ऑपरेशन के बाद के रोगियों के ज्ञान का आकलन करने के लिए संरचित प्रश्नावली

एटीक आगुिेंट िग थेरेपी के बारे में निदेश

: कृ पया प्रत्येक आइटम के लिए सबसे उपयुक्त उत्तर िुिें। आपके द्वारा प्रदाि की गई जाि्कारी क ग पि्ीय रि्ा जाएगा और के वि अिुसधाि उद्देश्य के लिए उपय ग नकया जाएगा।

1) थक्का-रोधी दवाओं को इस रूप में भी जाना जाि्ा है

ए) रक्त पतिा

करिे वाि

बी) रक्त जमावट

ग) वास निेटस

d) रक्त गाढा करता िै

2. निम्न में से कौन सा नवटानमन रक्त के थक्के जमने में मदद करि्ा है?

ए) नवटानमि ए

बी)

नवटानमि सी

सी) नवटानमि ई

िी) नवटानमि K

3. थक्का जमने के समय की जाँि के लिए नकस नमूने की आवश्यकि्ा होिी है?

ए) मूत्र

बी)

ि

ू

ि

सी) थूक

िी)पृ

4. रक्त का थक्का जमने की सामान्य समय अवधि क्या है?

ए)6 - 8 सेक

ि बी) 4

- 9 सकि

सी) 10 - 13 सेकि

िी)5 - 30 सकि

5. रक्त के थक्के जमने की जांि को क्या कहि हैं?

ए) प्र थॉखिि

समय बी)

पैक्ि

सेि

ि ी। नवटानमि के यु क्त ि ाद्य
वॉल्यूम सी)
पू र् रक्त
गर्ि ा
ि ी) नबि ीरुनबि परीक्षर्

6. ननम्ननलस्र्खि मेंसे नकस खाद्य स्रोि मेंनवटानमन K का उच्चि म स्तर है? a)पाि क
b)स याबीि का तेि
c) बदग भी)
d)उपर क्त सभी

7. वाल्व रप्लेसमेंट सजरी के बाद आपका आहार पैटन क्या होना ि ानहए?
एक। पि ि े के जेसे
बी। नवटानमि के यु क्त ि ाद्य पदाथों का सेवि बढाएँ

8. पीटी आईएनआर उच्च होने पर क्या होि ा है?
ए) रक्त का थक्का जमिा धीमा ि ता
ि ै बी) रक्त का थक्का तेजी से बिता
ि ै सी) रक्त का थक्का जमिा सामान्य
ि ै
ि ी) इिमे से क ई भी ि ि ी

9. आप थक्का-रोधी (एसीटोम) दवाओं का भण्डारण कहाँ करेंगे?
ए) निज
बी) सीधी धूप में
सी) सूि ा एयर टाइट कटेि र
ि ी) ठि ी जगि

10. थक्कारोधी दवा (एसीटोम) लेने का सबसे अच्छा समय क्या है?
एक) ि ि टाइम - द पि र 12 बजे
बी) शाम- 6 बजे (प्रत्येक नदि
समाि समय) सी) सुबि 6 बजे
(वैकखि क नदि)
ि ी) नदि के नकसी भी समय

11. सजरी के बाद आपको नकि ने समय ि क थक्कारोधी गोली (एसीट ोम)लेने की उम्मीद है?
एक) 1 मीि ा
बी) 1 वर्
सी) बदि े गए हृदय वाल्व के प्रकार पर निभर करता ि ै
ि ी) नजदगी भर

िी। नवटानमि के युक्त िाद्य
12. यदद आप थक्कारोधी गोली (एसीटोम) लेना भूल जाि हैं िो आप क्या करेंगे?
एक) िुराक छ डेंं
बी) उस नदि याद आते
िी ग िी िे
िेंं सी) टैबिेट की द
िुराक िेंं
िी) आधा टैबिेट िेंं

13. थक्कारोधी दवा (एसीटोम) की कम खुराक से क्या लक्षण होिे हैं?
एक) वार्ी का अस्पष्ट
ि िा बी) सांस
िेि े मेंं कष्ट
सी) बेि शी की िाि
िी) ऊपर के सभी

14. आपको कै से पिा िलेगा नक थक्का-रोधी दवा (एसीटोम) की मात्रा अनधक है?
एक) त्वि ा
मेंं
िुजि ी
बी) िकत्ते
सी) रक्तस्राव नजसे रुकि े मेंं अनधक समय िगता िै।

ि ी)

15. थक्कारोधी दवा (एसीटोम) के सबसे आम दुष्प्रभाव क्या हैं?
एक) आसाि ी से ि ूि
ब ि ि े की प्रवृत्त बी)
छाती मेंं दद
सी) नसरदद
ि ी) बे ि शी

16. जब आप थक्का-रोधी उप ि ार ले रहे हों ि ो कौन सी नवशेष सावधानियां बरि नी ि ानहए?
एक) घूमि े ि जाए. बी)
ि ट
ि ग ि े से
ब ि ेें
सी) अप ि ा ि ाइट प्लाि बद ि ेें.
ि ी) शरीर का वज ि न कम करेें.

17. थक्कारोधी (एसीटोम) की खुराक ननम्ननलख्ि मेें से नकस पररणाम पर ननभर करि ी है?
एक)
पीटी/आईए ि आ
र बी) पैक्ि
से ि ॉल्यूम
सी) पूर् रक्त
गर्ि ा
ि ी) नब ि ीरु नब ि परीक्षर्

18. थक्कारोधी (एसीटोम) दवा लेने पर शरीर के वजन को कै से बनाए रखेें?
एक) वज ि न
बढाओ बी)
वज ि न कम कर
सी) शरीर का वज ि न स्थथर ब ि ाए र ि ेें
ि ी) ि र शरीर का वज ि न

19. आपको थक्का-रोधी (एसीटोम) के सेवन के बारे मेें अन्य नि ि नकत्सकोें और दं ि त नि ि नकत्सक को कब सूनि ि ि करना होगा?
एक) उप ि ार से
प ि ि े सूनित करेें
बी) सूनित कर ि ा

ि ी)
आवश्यक ि ि ी ि ै
सी) उपिार के दौरा ि सूनित करें
ि ी) जनट ि त ा ि ि े के ब ाद स ूनित कर े ं

20. थक्का-र ोधी दव ा (एस ीट ोम) ल ेन े क े दौर ान ज ीवनश ैल ी म े ं क्य ा बदल ाव कर न े ह ोग े ?

एक) ध ूम्रप ा ि
बद कर े ं ब ी)
ि ि ि ा
बद कर स ी)
त ैर ि ा बद कर
ि ी) फ ास्ट फ ू ि बद कर

ANNEXURE 3

LETTER SEEKING PERMISSION FOR TOOL VALIDATION

NURSING COLLEGE, OFFICE
AIIMS, BHOPAL (M.P)-462020
Received No. 11172
Date 1/8/23

DRAFT LETTER REQUESTING EXPERTS OPINION AND SUGGESTIONS FOR THECONTENT VALIDITY OF RESEARCH TOOL

Date:

From,

Aityhang Subba
M.Sc. Nursing (Batch 2022-24)
Nursing college, AIIMS Bhopal.

To,

.....
.....
.....

Subject: Requesting the expert's opinion and suggestion for the content validity of research tool

Respected Sir/ Madam,

I, Aityhang Subba, M.Sc. Nursing (Batch 2022-24) student in CTVS/Cardiology Nursing at Nursing College of AIIMS Bhopal. I haveselected the topic mentioned below for my dissertation to be submitted as partial fulfillment of Masters in Nursing Degree programme, at the nursing college, AIIMS Bhopal.

Title of the study: "A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS, Bhopal."

In this regard I have prepared the following:

1. Self-structured tool for data collection in English.
2. Self structured questionnaire to assess the knowledge of post operative patients regarding anticoagulant drug therapy. 3. Detailed Intervention

May I request you to kindly go through the content and give your valuable remarks and suggestions for any modification needed. I also plea you to accept the request and sign the enclosed certificate of validation.
I shall be grateful to you for your valuable remarks and suggestions.

Thanking you in anticipation.
Yours sincerely,
AITYHANG SUBBA
M.Sc. Nursing (Batch 2022-24)

GUIDE
Dr. Anurag Bhai Patidar
Associate Professor
College of Nursing
AIIMS Bhopal

Co-Guide
Mr. Rajratan Gupta
Assistant Professor
College of Nursing,
AIIMS Bhopal

Co-Guide
Dr. Yogesh Kumar Niwariya
Associate Professor
Cardio-Thoracic Surgery
AIIMS Bhopal

Dr. Mamta Verma
I/C PRINCIPAL
Nursing College, AIIMS Bhopal 01/08/2023.

Enclosed with: Letter of permission, Brief synopsis, Research tool, Criteria checklist for contentvalidity of the tool, Certificate of validation.

ANNEXURE 4

LIST OF EXPERTS (TOOL AND INTERVENTION)VALIDATIONS)

S.No.	Name of the expert	Designation	Institution
1	Dr. Kamlesh kumara Sharma	Professor cum Principal	AIIMS Bhatinda
2	Dr. Kishan Magatapalli	Associate professor (CTVS Department)	AIIMS Bhopal
3	Dr. Surendra Singh Yadav	Associate professor (CTVS Department)	AIIMS Bhopal
4	Dr. Jisa George T	Assistant professor	Nursing College, AIIMS Bhopal
5	Dr.Radhika CK	Assistant professor	Govt. College of nursing kottayam
6	Dr. Kishan Magatapalli	Associate professor (CTVS Department)	AIIMS Bhopal
7	Dr. Surendra Singh Yadav	Associate professor (CTVS Department)	AIIMS Bhopal
8	Bincy Shiju Kuriakose	Assistant professor	Kasturba College of Nursing, Bhopal
9	Ms. Ranjana Verma	Assistant professor	Nursing College, AIIMS Bhopal
10	Mr. R Velmurgan	Assistant Professor	Nursing College, AIIMS Bhopal

ANNEXURE 5

CRITERIA CHECKLIST FOR THE VALIDATION OF THE TOOL

SOCIODEMOGRAPHIC QUESTIONNAIRE

The tool contains 10 items regarding sociodemographic data.

We need your expert judgement on degree of relevancyof each item to themeasured domains. If there is any suggestions and modification, please mention in the remark column. Your expert opinion and kind cooperation will be highly appreciated.

Item no.	Highly relevant 4	Quite Relevant 3	Somewhat relevant 2	Not relevant 1	Remarks
Item no. 1					
Item no. 2					
Item no. 3					
Item no. 4					
Item no. 5					
Item no. 6					
Item no. 7					
Item no. 8					
Item no. 9					
Item no. 10					

Suggestions, if any:

SELF STRUCTURED KNOWLEDGE QUESTIONNAIRE

The tool for 20 items respectively to assess the knowledge regarding anticoagulant drug therapy. We need your expert judgement on degree of relevancy of each item to the measured domains. If there is any suggestions and modification, please mention in the remark column. Your expert opinion and kind cooperation will be highly appreciated.

Item no.	High ly relev ant4	Quite Relevant 3	Somewhat relevant 2	Not relevant 1	Remarks
Item no. 1					
Item no. 2					
Item no. 3					
Item no. 4					
Item no. 5					
Item no. 6					
Item no. 7					
Item no. 8					
Item no. 9					
Item no.10					
Item no.11					
Item no.12					
Item no.13					
Item no.14					
Item no.15					
Item no.16					
Item no.17					
Item no.18					

Item no.19					
Item no.20					

Suggestions, if any:

ANNEXURE 6

CERTIFICATE OF VALIDATION FOR TOOL

This is to certify that the tool prepared by Ms. Aityhang Subba, M.Sc. Nursing 2022 batch student, Nursingcollege, AIIMS Bhopal, to be used in her study titled **"A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS, Bhopal."** has been validated by me and is found to be **valid.**

Overall remark:

Signature:

Name of the expert:

Designation:

Name of the institution:

Official seal:

Date:

Place:

ANNEXURE 7

CERTIFICATE OF VALIDATION (INTERVENTION)

This is to certify that the video intervention prepared by Ms. Aityhang Subba, M.Sc. Nursing 2022 batch student, Nursingcollege, AIIMS Bhopal, to be used in her study titled **"A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS, Bhopal."** has been validated by me and is found to be **valid**

Overall remark:

Signature:

Name of the expert:

Designation:

Name of the institution:

Official seal:

Date:

Place:

ANNEXURE 8

LANGUAGE VALIDATION CERTIFICATE

Hindi Validation Certificate

This is to certify that Aityhang Subba; M.Sc. Nursing student of Nursing College, AIIMS Bhopal conducting Research on the topic ""**A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS, Bhopal.**"

This tools for data collection is translated from English language to Hindi language by me. The Hindi tool is valid to collect the data for Research.

V.K.S 27.9.2023

Seal & Signature

Name of the expert : DR. VIRENDRA KUMAR SINGH

Qualification : M.A, M.Phil, Ph.D

Designation : PGT (HINDI)

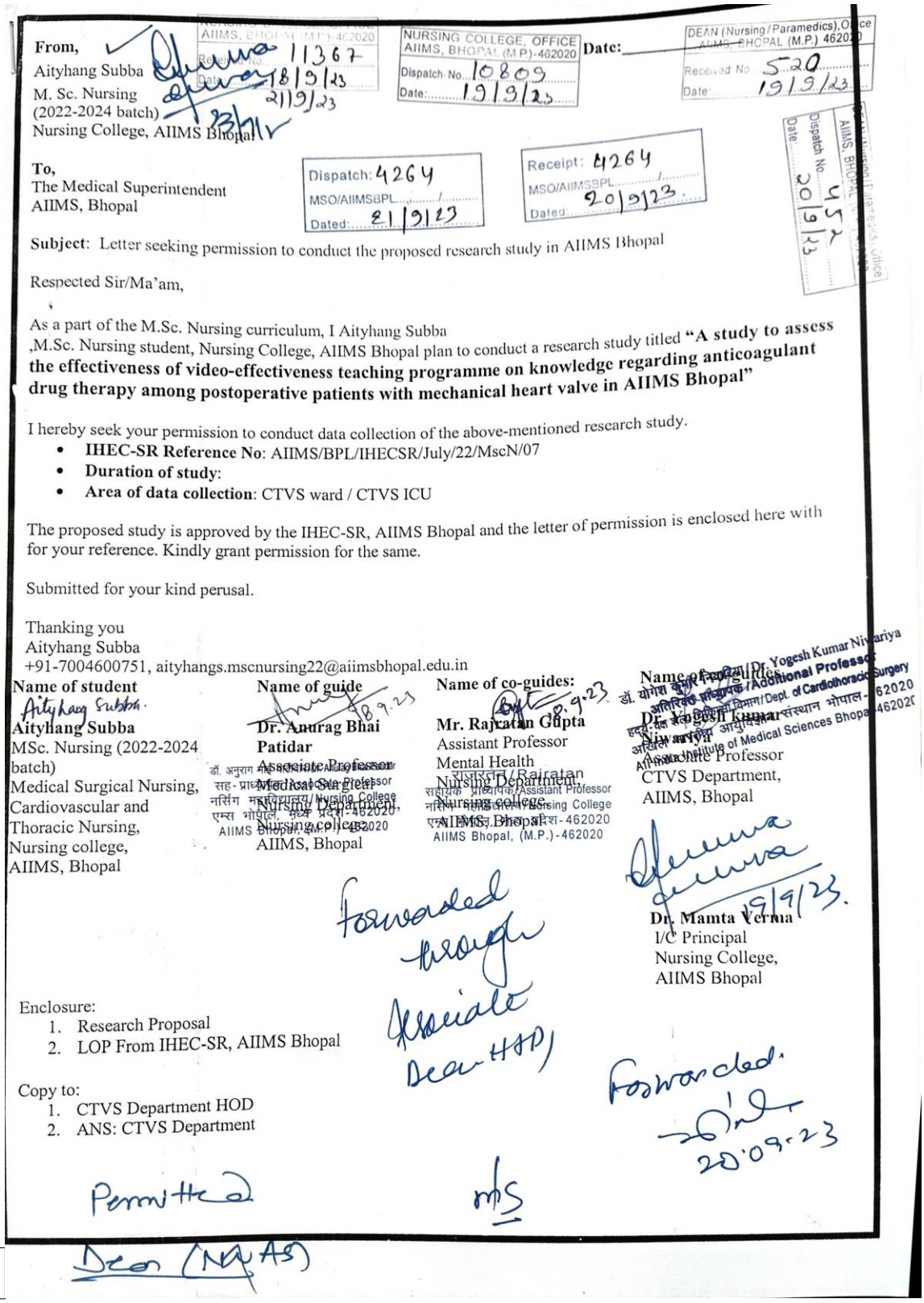
Name of the institute: Kendriya Vidyalaya No-3 Bhopal

Date : 27-09-2023

Place: BHOPAL

ANNEXURE 10

LETTER SEEKING PERMISSION TO CONDUCT PILOT STUDY



From,
Aityhang Subba
M. Sc. Nursing
(2022-2024 batch)
Nursing College, AIIMS Bhopal

To,
The Medical Superintendent
AIIMS, Bhopal

Subject: Letter seeking permission to conduct the proposed research study in AIIMS Bhopal

Respected Sir/Ma'am,

As a part of the M.Sc. Nursing curriculum, I Aityhang Subba
,M.Sc. Nursing student, Nursing College, AIIMS Bhopal plan to conduct a research study titled **"A study to assess the effectiveness of video-effectiveness teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal"**

I hereby seek your permission to conduct data collection of the above-mentioned research study.

- **IHEC-SR Reference No**: AIIMS/BPL/IHECSR/July/22/MscN/07
- **Duration of study**:
- **Area of data collection**: CTVS ward / CTVS ICU

The proposed study is approved by the IHEC-SR, AIIMS Bhopal and the letter of permission is enclosed here with for your reference. Kindly grant permission for the same.

Submitted for your kind perusal.

Thanking you
Aityhang Subba
+91-7004600751, aityhangs.mscnursing22@aiimsbhopal.edu.in

Name of student
Aityhang Subba
MSc. Nursing (2022-2024 batch)
Medical Surgical Nursing, Cardiovascular and Thoracic Nursing,
Nursing college,
AIIMS, Bhopal

Name of guide
Dr. Anurag Bhai Patidar
Associate Professor
Medical Surgical Nursing Department,
Nursing college
AIIMS, Bhopal

Name of co-guides:
Mr. Rajratan Gupta
Assistant Professor
Mental Health Nursing Department,
Nursing college
AIIMS, Bhopal

Name of co-guides:
Dr. Yogesh Kumar Nivariya
Additional Professor
Dept. of Cardiothoracic Surgery
All India Institute of Medical Sciences Bhopal
Associate Professor
CTVS Department,
AIIMS, Bhopal

Dr. Mamta Verma
I/C Principal
Nursing College,
AIIMS Bhopal

Enclosure:
1. Research Proposal
2. LOP From IHEC-SR, AIIMS Bhopal

Copy to:
1. CTVS Department HOD
2. ANS: CTVS Department

Forwarded through Associate Dean HSP)

Forwarded. 20.09.23

Permitted

Dean (NHAS)

ANNEXURE 10

PARTICIPANT INFORMED CONSENT FORM (PICF)

Participant identification number for this study: _____

Title of project: **"A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal"**

Name of Student Investigator: Aityhang Subba

Tel. No(s): 7004600751

Name of Thesis Guide: Dr. Anurag Bhai Patidar (Associate Professor, Department of CTVS/Cardiology Nursing) College of Nursing, AIIMS Bhopal

The contents of the information sheet dated 20 August 2022 that was provided have been read carefully by me / explained in detail to same, in a language that I comprehend, and I have fully understood the contents. I confirm that I have had the opportunity to ask questions.

The nature and purpose of the study and its potential risks / benefits and expected duration of the study, and other relevant details of the study have been explained to me in detail. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal right being affected.

I understand that the information collected about me from my participation in this research and sections of any of my medical notes may be looked at by responsible individuals from AIIMS. I give permission for these individuals to have access to my records.

I agree to take part in the above study.

---------- Date:

(Signatures / Left Thumb Impression) Place:

Name of the Participant: _____

Son / Daughter / Spouse of:_____

Complete postal address: _____

This is to certify that the above consent has been obtained in my presence.

_____

Signatures of the Principal Investigator Date: Place:

1) Witness – 1 2) Witness – 2

_____ ----------

Signatures Signatures

Name: Name:

Address: Address:

प्रतिभागी सूचना सहमतिप्रपत्र

इस अध्ययन के तिए प्रतिभागीकापहचाननंबरः.....

अनुसंधान काशीर्कः एम्स भ पाि मेंं मैके नि‍कि ि‍ाट वाल्व वाि‍े पसटऑपरे नत्व रनगय के बीि‍ एटीक आगुि‍ेेंट ि‍ग थरे पी के ज्ञाि‍ पर वीनि‍य अनसस्टेि‍ नशक्षर् कायि‍म की एभावशीिता का आकि‍ि‍ करि‍े
के निए एक अध्ययि‍"

शोधकि‍ा छात्रकानाम ..... ऐनति‍ाग सुब्बा.....

फोननं:.....7004600751.....**....**

शोधमागदशषककानाम : ... ि‍ॉ. अि‍ुराग भाई पाटीदार (एस नसएट प्र फे सर, सीटीवीएस/कानि‍य ि‍ॉजी ि‍नसग नवभाग) कॉि‍ेज ऑफ ि‍नसग, एम्स भ पाि

मैंनेतदनांक20.08.2022 के सूचनापत्रक संस्करण मेंंतदएगएसभीि‍थ्योंकोसावधानीपूवषकपढ़तियाहै/मुझेअपनीभारा्ामेंंस् पष्ट रूप सेतवस्तारपूवकसमझातदयागयाहै,औरमैंनेि‍थ्योंकोपूणि‍ःसमझति‍याहै। मैंपुष्ट

करि‍ा/

करि‍ीहूँ,तकमुझेसवाि‍ पूछनेके अवसर प्रदान तकए गए।
मुझेइसअध्ययनकीप्रकृ तिएवंउद्देश्यऔरइसके संभातवि‍जोखिमोंं / ि‍ाभोि‍थाअध्ययनकीअनुमा तनि
अवतधएवं अन्यप्रासंतगकजानकारीके बारे मेंंतवस्तारपूवकसमझातदयागयाहै ।मुझे पि‍ा
हैतकइसअध्ययनमेंंमेरीभागीदारीस्वैक्ति‍कहै ि‍थामैंइसअध्ययनसेतकसीभी समयतबनाकोईकारणबि‍ाए, अपनानामवापस ि‍ेने के तिए स्वि‍ंत्र हं और नाम वापस ि‍ेने पर मेरी तचतकत्सा दे ि‍भाि‍ या कानूनी अतधकारोंं पर कोई प्रभाव नहीं पडेगा।
मैंसमझि‍ा/समझि‍ीहंतकइसअनुसंधानमेंंमेरी भागीदारीसेमेरेबारेमेंंएकत्र की गईजानकारीऔर मेरे
तचतकत्सीय दस्तावेजोंं के तकसी भी ारा हीभाग को एम्स के तजम्मेदार व्यखियोद्व दे ि‍ा जाएगा।मैंइनव्यखियोकोमेरे रकॉर्प्राप्त करनेकीअनुमतिप्रदानकरि‍ा/ करि‍ीहूँ।
यतद प्रतिभागी बच्चा है ि‍ो उसकी मौखिक या तिखि‍ि‍ सहमतिि‍ प्राप्त की गई है।
मैंउि‍ि‍ अध्ययनमेंंभागि‍ेनेके तिएसहमिहं/I agree to take part in the above study.

_____

(**प्रतिभागीके हस्ताक्षर / बांएअंगूठे कातनशान**)(Signature/Left Thumb Impression

तदनांक/Date.....**स्थान/**Place .....**.....**

प्रतिभागीकानाम/Name of the participant.....**.....**
तपि‍ा/पति/पत्नीकानाम/Son/Daughter/Spouse of.....
रहाक का पूरापि‍ा/Complete Postal Address .....**...**

अगर अतशतक्षि हों / If illiterate.

सूचना पत्र को प्रतिभागी को पढ़ा और समझाया गया है और प्रश्न पूछने का अवसर तदुया गया है। मैं पुष्टि करता हं तक व्यक्ति ने स्वेच्छा से अपनी सहमति दी है ।

कानूनी रूप से स्वीकाय प्रतितनतध या तनष्पक्ष गवाह के
हस्ताक्षर Signature of Legally acceptable representative or
impartial witness.तदनांक/Date
एलएआर या तनष्पक्ष गवाह का नाम / Name of LAR or impartial witness .
पता / Address :-

प्रमातणतकयाजाताहैतकउक्तसहमतिमेरीउपस्थतिमें प्राप्त कीगई।
This is to certify that the above consent has been obtained in my presence.

छात्र शोधकता के हस्ताक्षर तदनांक..... स्थान.....

Participant Information Sheet

STUDY TITLE: "A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal"

1. STUDY INVESTIGATORS:

2. Student: Aityhang Subba (CTVS/Cardiology Nursing) MSc. 1st year

3. Guide(Name, Department): Dr.Anurag Bhai Patidar (CTVS/Cardiology Nursing)

4. Co- Guide/s :-Mr Rajratan Gupta(Psychiatric Nursing),

5. Co-Guide :-Dr. Yogesh Kumar Niwariya(Cardiothoracic Surgery)

Introduction: We are conducting a Research study to assess the effectiveness of video-assisted teaching programme on knowledge regarding importance of anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal"

Anticoagulants are widely used to prevent and treat thromboembolic events, but are also high-risk medications. They are associated with increased risk of bleeding and are one of the top drugs causing emergency room. We would like to request you to participate in the study. If you agree to take part voluntarily, we will ask you to sign a consent form.

5. Purpose of the study:

A study to assess the effectiveness of video-assisted teaching programme on knowledge regarding anticoagulant drug therapy among postoperative patients with mechanical heart valve in AIIMS Bhopal"

This will help us to find the effectiveness of video-assisted teaching programme on anticoagulant drug therapy.

6. Taking part – what it involves:

a. Do I have to take part?

Participation in this research is entirely voluntary. A decision to not take part, or to withdraw at any time, will not affect your rights or medical care in any way.

b. What is expected of me if I take part?

If you participate we will collect information on knowledge regarding anticoagulant drug therapy and administer video assisted teaching programme on anticoagulant drug therapy

c. How long will my part in the study last?

Your participation in the study would last for …4days

Do I have to come for extra visits or undergo extra investigations for the study?

2 days visit for administering video assisted teaching programme

d. What are the possible benefits in taking part?

Taking part will help gain knowledge about anticoagulant drug therapy which may result in improvement of self management of anticoagulant drugs.

What are the possible disadvantages and risks of taking part?

There are no major foreseeable disadvantages or risks because of the study. There may be risk of loss of privacy and confidentiality of information collected even though all possible measures will be taken to ensure safe data storage and access.

What happens to the information collected from me?

All information collected will be kept strictly confidential and not shared with anyone. Results from the study will be reported as group data and will not identify you in any way.

e. What if I change my mind regarding participation in the study?

You are entitled to change your mind and withdraw at any time during the study without any disadvantage or penalty.

f. Whom do I contact for more information or if I have further questions or concerns?

If you want any information or have questions or concerns, you can contact:

Ms. Aityhang Subba
Post graduate student,
Department of …CTVS/Cardiology Nursing
AIIMS, Bhopal

Dr. Shashank Purwar
Member Secretary,
Institute of Ethics Committee-
Student Research

(Mobile no, Email id)

(7773010099, ihecpgr@aiimsbhopal.edu.in)

Contact and questions: For any question, concern or complaint about this study, you may contact, Miss Aityhang Subba on aityhangs.mscnursing22@aiimsbhopal.edu.in ; 7004600751

ANNEXURE 12

<u>प्रतिभागी सूचना शीट</u>

अध्ययन शीर्षक:एम्स भ पाि मेंं मैके निकि िाट वाल्व वाि े प स्टऑपरे नटव र नगय के बीि एटीक आगुिेंट िग थेरे पी के ज्ञाि पर वीनिय -अनसस्टेि नशक्षर् कायिम की प्रभावशीितिा का आकिि करिे के निए एक अध्ययि"

अध्ययन अन्वेषक:

छात्र: ..... ऐनतिाग सुब्बा (सीटीवीएस/कानिय िॉजी िनसग) एमएससी प्रथम वर्

गाइि (िाम, नवभाग): 1)िॉ.अिुराग भाई पाटीदार (सीटीवीएस/कानिय िॉजी िनसग) 2)सि-गाइि/एस:-श्री राजरति गुप्ता (साइनकएनटक िनसग),

3) मेनिकि क -गाइि:-िॉ. य गेश कु मार नि वाररया (कानिय थ रेनसक सजरी)

4.पररिय:

िम एम्स भ पाि मेंं यानत्रक हृदय वाल्व वाि े प स्टऑपरे नटव र नगय के बीि एटीक आगुिेंट िग थेरे पी के बारे मेंं ज्ञाि पर वीनिय -सायक नशक्षर् कायिम की प्रभावशीितिा का आकिि करिे के निए एक श ध अध्ययि कर रिे िैं। प्र ि ि निक घटिाओ क र किे और इिाज के निए एटीक आगुिट्स दवाओ का व्यापक रूप से उपय ग नकया जाता िै। रक्तस्राव के बढते ज खिम से जुडे िैं और शीर् दवाओ मेंं से एक िैं ज आपातकाि का कारर् बि सकती िैं। िम आपसे इस अध्ययि मेंं भाग िेिे का अिुर ध करिा िाित िैं। यनद आप स्वे ा से भाग िेिे के निए सिमत िैं, त िम आपसे एक सिमनत फॉम पर िस्ताक्षर करिे के निए किेंगे।

5.अध्ययन का उद्देश्य:

एम्स भ पाि मेंं मैके निकि िाट वाल्व वाि े प स्टऑपरे नटव र नगय के बीि एटीक आगुिेंट िग थेरे पी के ज्ञाि पर वीनिय -अनसस्टेि नशक्षर् कायिम की प्रभावशीितिा का आकिि करिे के निए एक अध्ययि" यि िमेंं एटीक आगुिेंट िग थेरे पी पर वीनिय -समनथत नशक्षर् कायिम की प्रभावशीितिा का पता िगाि े मेंं मदद करे गा।

6. भाग लेना - इसमेंं क्या शानमल है:

ए) क्या मुझे भाग लेना है?

इस श ध मेंं भागीदारी पूरी तरि से स्वैखिक िै। भाग ि िेिे या नकसी भी समय वापस िेिे का नि्य नकसी भी तरि से आपके अनधकार या नि नकत्सा दे ा भाि क प्रभानवत निी करेगा।

ख. यनद मैंं भाग लेिा हं ि ो मुझसे क्या उम्मीद की जाि ी है?

यनद आप भाग िेते िैं त िम थक्कार धी दवा निनकत्सा के बारे

मेंं जानकारी एकत्र करेंगे और थक्कार धी दवा निनकत्सा पर वीनिय सिायक नशक्षर् कायिम स िानित करेंगे। **अध्ययन मेंं मेरा नहस्सा नकिने समय िक िलेगा?** अध्ययनि ...4 नदनि तक िनिेगा|

क्या मुझे अध्ययन के नलए अनिररक्त मुलाकाि के नलए आना होगा या अनिररक्त जाँि-पड़िाल करनी होगी? अध्ययनि के नलए नकसी अनतररक्त दौरे या जाि की आवश्यकता निनी िै। िी।

भाग लेने मेंं संभानवि लाभ क्या हैं? भाग िेने से थक्कार धी दवा निनकत्सा के बारे मेंं ज्ञाि प्राप्त करने मेंं मदद नमिेगी नजसके पररर्ामस्वरूप थक्कार धी दवाओ के स्व प्रबधि मेंं सुधार ि सकता िै।

संभानवि नुकसान क्या हैं और भाग लेने के जोखम? अध्ययनि के कारर् क ई बडा

पूवाभास य गय िुकसाि या ज खिम िि ी ि ै। एकत्र क ी गई जा ि कार ी क ी ग प ि ीयता और ग प ि ीयता के ि ुकसाि क ा ज खिम ि सकता ि ै, भि े ि ी स ुरक्षत ि ेटा भ ि ारर् और पह ि स ुनि ित कर ि े के ि ए सभ ी स ोंभव उपाय नकए ज ाएग े।

म ुझस े एकत्र क ी गई जानकार ी क ा क्य ा ह ो ि ा ह ै? एकनत्रत क ी गई सभ ी ज ा ि कार ी क सख्त ी स े ग प ि ीय र ि ा ज ाएग ा और नकस ी के साथ साझ ा ि ि ी नकय ा ज ाएग ा। अध्ययि के पररर्ाम क समू ि ि ेट ा के रूप म ें ररप ट नकय ा ज ाएग ा और नकस ी भी तर ि स े आपक ी पि ि ाि ि ि ी ि ग ी।

यनद म ैं अध्ययन म ें भ ाग ल ेन े के ब ार े म ें अपन ा नव ि ार बदल द ूं ि ो क्य ा ह ोग ा? आप अप ि ा नव ि ार बद ि ि े और अध्ययि के दौर ाि नकस ी भी समय नब ि ा नकस ी के पीछे ि ट ि े के ि कदार ि ैं ि ुकसाि या ज ुम ाि ा। एफ।

अनधक जानकार ी के ि ल ए म ैं नकसस े स ंपक कर ूं या यनद म ेर े प ास और प्रश्न य ा न ि ं ि ाए ं ह ैं? यनद आप क ई ज ा ि कार ी ि ाि ते ि ैं य ा प्रश्न य ा न ि ताए ि ैं, त आप सपक कर सकते ि ैं:

स ुश्री ऐन ि ह ा ंग स ुब्ब ा
प ुरवार सीटीवीएस/कार्डयोलॉजी नर्सिंग सनि व,
स्नाि कोत्तर छात्र
भ ोप ाल छात्र

ड ॉ. शश ा ंक
सदस्य
इंस्टीट्यूट ऑफ एथक्स कमेटी-एम्स,

अनुसंधान (मोबाइल नंबर, ईमेलआईडी)
(7773010099,
ihecpgr@aiimsbhopal.edu.in)

<u>स ंपक और प्रश्: इस अध्ययन के ब ार े म े ं नकसी भ ी प्रश्न, न ि ं ि ा य ा न शकाय ि के ि ल ए, आप aityhangs.mscnursing22@aiimsbhopal.edu.in पर नमस ऐन ि ह ा ंग स ुब्ब ा स े स ंपक कर सक ि े ह ैं; 7004600751</u>

ANNEXURE 13
CODING OF MASTER DATA SHEET

Age (V1)	below 18	1
	18-36 yrs	2
	37-55yrs	3
	56-74yrs	4
Gender (V2)	male	1
	female	2
Education (V3)	post graduate	1
	graduate	2
	intermediate or diploma	3
	high school	4
	middle school	5
	primary school	6
	no formal education	7
Religion (V4)	hindu	1
	christian	2
	muslim	3
	others	4
Type of family (V5)	nuclear family	1
	joint family	2
Occupation (V6)	Government	1
	Unemployment	2
	Private	3
	Medical	4
	Agricultural	5
	Others	6
Family income (V7)	≤9307 Rs	1
	9308-27882Rs	2
	27883-46474 Rs	3
	46475-69534 Rs	4
	69535-92950 Rs	5

	69535-92950 Rs	5
	92951-185894Rs	**6**
	≥185,895 Rs	**7**
Marital status (V8)	unmarried	1
	Married	2
Previous history of any surgery (V9)	Yes	1
	no	2
Are you aware of the anticoagulant drug prescribed? (V10)	yes	1
	no	2
Knowledge Score Pres test (Q1)	1 High 2 Average 3 Low 4 VeryLow	1 2 3 4
Knowledge Score Pres test (Q2)	1 High 2 Average 3 Low 4 VeryLow	1 2 3 4

Sr.	V1	V2	V3	V4	V5	V6	V7	V8	V9	Q1	Q2
1	4	2	5	1	2	5	2	2	2	4	1
2	2	1	4	1	1	3	2	1	2	4	2
3	3	1	5	1	2	3	2	2	1	4	1
4	4	2	7	1	2	6	2	2	1	3	1
5	2	2	5	1	2	3	3	2	2	4	1
6	2	2	3	1	1	6	3	2	2	3	1
7	2	1	3	1	1	1	4	2	2	3	2
8	3	2	4	1	2	3	3	2	2	3	1
9	2	2	5	1	2	3	2	2	2	4	1
10	3	1	3	1	2	1	3	2	2	3	2
11	2	2	6	1	1	6	2	2	1	3	2
12	3	1	5	1	2	5	2	2	2	3	2
13	3	2	7	1	2	5	3	2	1	4	2
14	2	1	4	1	2	5	2	2	2	4	2
15	3	1	6	1	2	6	1	2	1	4	1
16	2	2	4	1	1	3	3	2	2	4	2
17	2	1	6	1	2	1	2	2	1	3	2
18	2	2	4	1	2	6	2	2	2	4	2
19	2	2	5	1	1	2	1	2	2	3	2
20	3	1	5	1	2	3	2	2	2	4	2
21	3	2	5	1	2	5	2	2	2	3	3
22	2	2	5	1	2	6	2	2	1	4	3
23	4	1	5	1	2	5	3	2	2	4	4
24	2	1	4	1	1	3	2	1	2	3	3
25	3	1	6	1	2	3	2	2	1	4	4
26	2	1	4	1	2	1	3	2	2	4	4
27	3	2	3	1	1	3	3	2	1	3	3
28	3	1	2	1	1	1	3	2	2	3	3
29	4	1	6	1	1	3	1	2	2	4	4
30	2	2	4	2	1	3	3	1	2	3	3

31	4	2	7	1	2	2	1	2	1	4	4
32	3	2	4	1	1	3	2	2	2	3	3
33	4	2	6	1	2	6	2	2	1	4	4
34	2	1	4	1	2	3	3	2	2	4	3
35	3	1	4	1	2	5	1	2	2	3	4
36	2	2	4	1	2	3	3	2	1	3	4
37	3	1	6	1	1	5	2	1	1	4	4
38	4	1	6	1	2	5	2	2	2	3	3
39	2	2	3	1	2	3	2	2	1	3	3
40	4	2	7	1	2	2	1	2	1	4	4